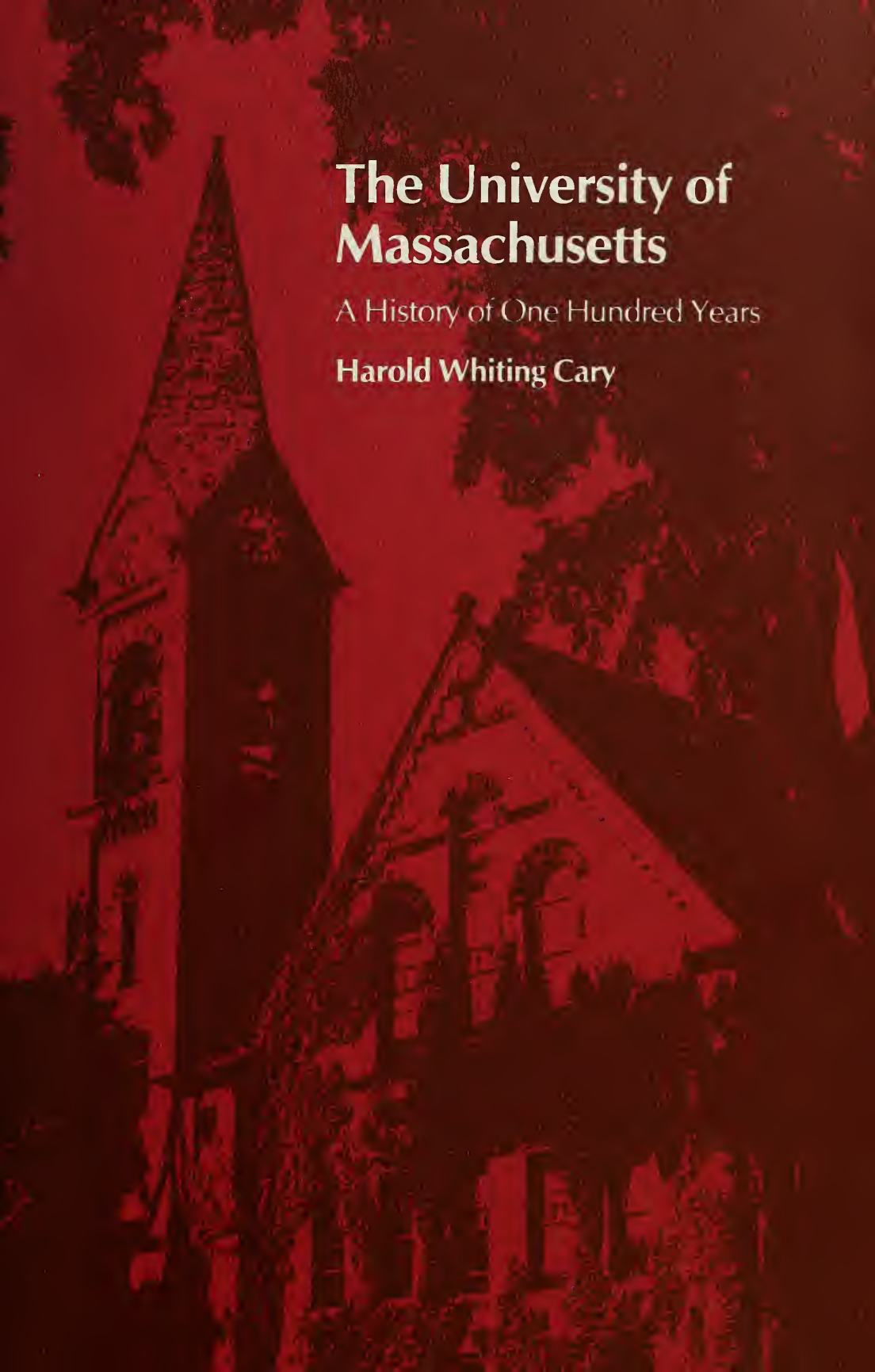

The University of Massachusetts

A History of One Hundred Years

Harold Whiting Cary

The University of Massachusetts
A History of One Hundred Years
Harold Whiting Cary

In the course of a century, the University of Massachusetts grew from a small agricultural college into a major institution of higher learning.

Changes in its name marked its development. As one of the original land-grant institutions, it was first known as Massachusetts Agricultural College, with a curriculum primarily dedicated to the improvement of farming and rural life. When the college broadened its programs during the 1930s and early 1940s to include many other fields of interest, it was renamed Massachusetts State College. In 1947 it became the University of Massachusetts, with goals and purposes which included all the professional and educational aims of a major university.

A History of One Hundred Years traces the growth of the University from its beginnings in 1863 through its remarkable expansion during the "University Era." Students of Massachusetts history and of the history of American education will find much of interest and value in this chronicle.

A member of the Department of History at the University of Massachusetts, Harold Whiting Cary received his B.A. degree from Williams College, his M.A. degree from Harvard, and his Ph.D. from Yale. Mr. Cary first joined the faculty of Massachusetts State College in 1933 and has observed and taken part in much of the development of the University.

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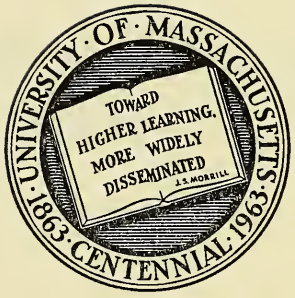
THE UNIVERSITY OF MASSACHUSETTS

A History of One Hundred Years


UNIVERSITY · OF · MASSACHUSETTS
1863 · CENTENNIAL · 1963
TOWARD
HIGHER LEARNING,
MORE WIDELY
DISSEMINATED
J.S. MORRILL

The UNIVERSITY of MASSACHUSETTS

A History of One Hundred Years

By

HAROLD WHITING CARY

UNIVERSITY of MASSACHUSETTS

Amherst, Massachusetts

1962

DEDICATION

To all who have helped
to establish and maintain
this institution of higher learning:
staff, students, alumni, trustees,
and citizens and officials
of the Commonwealth of Massachusetts.

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• PREFACE •

The University of Massachusetts as an entity has had three different meanings to the three groups who have known the institution in its hundred years of existence. Students and others who knew it before 1931 recall a small college in a rural setting dedicated to the improvement of farming and rural life. Adhering to a strict construction of the terms of the Morrill Act, her leaders succeeded in making "Massachusetts Agricultural College" known as a school of quality in its field. The public generally and alumni of the 1930's and early 1940's remember a slightly larger institution, "Massachusetts State College," which was dedicated to the broader ideals of education connoted in the title of "state college." This newly named college sought to offer low-cost education to an increasing number of students whose interests lay in fields other than agriculture. In 1947 this institution again changed its name, to the "University of Massachusetts," and it redefined its purposes to include all of the professional aims of a full-fledged university. Impelled by increasing pressure for admission and by demands for new types of education, the University moved rapidly ahead in developing its new character.

To those familiar with only the history of the university era, the older past may seem to be merely remotely significant; but this past is, of course, an important part of the total story. What the institution is now, owes much to what it was then.

This study undertakes to reconstruct the development of the state university in Massachusetts in all its three phases. Special attention has been focused on the major leaders and forces influencing this development. It is hoped that this review of the contributions made by hundreds of officials, teachers and students may result in clearer understanding of the present and past role of this institution.

The author gratefully acknowledges his indebtedness to many persons for cheerful assistance with this project. Special thanks are due to Librarian Hugh Montgomery and his staff at the Goodell Library. The resources of the Machmer Room, housing the archives of the University, were available at all times, and the reference staff rendered invaluable assistance. Appreciation is also extended to other libraries which helped to smooth the way: the Amherst College Library, the Boston Public Library, the Boston Atheneum, the Massachusetts Historical Society, the Jones Library of Amherst, the Forbes Library of Northampton, the Springfield City Library, and the State Library of Massachusetts.

Appreciation is extended to many persons who have helped in other ways. John C. Williams ('60), Ralph L. Snow ('60), and Richard J. Willey ('60) were diligent in uncovering materials in early newspapers, student

publications, and college records. Heads of departments and their secretaries have searched their files for forgotten records and uncovered many a valued item. Particularly helpful were the efforts of Miss Alice J. Alley, Mrs. Ethel H. David, and Mrs. Alice D. Kucinski of the president's office. Presidents Mather and Lederle and Provosts McCune and Woodside generously arranged for released time from teaching duties and otherwise supported research, writing, and editing of the manuscript. The support of the University's Research Council made possible the acquisition of printed sources, travel for research, and the typing of the manuscript. To Professor Maxwell H. Goldberg, William Deminoff, and Gilbert E. Mottla, members of the University Centennial Publications Committee, appreciation is extended for continued encouragement and arrangements for publication.

Many others contributed more than they realize through their expressions of interest and offering of suggestions. To them, my thanks. Provost Gilbert L. Woodside and University Editor William Deminoff read the manuscript and made many useful criticisms. Others who read portions include Mrs. Martha R. Wright, Professors Leonta G. Horrigan, Frank Prentice Rand, Robert P. Lane, Arnold J. Silver and Joseph Langland. To the typists, Mrs. Helen F. Vannett, Mrs. Gloria E. Gentile, and Mrs. Marlyn H. Reynolds, belongs a large measure of gratitude for efficient assistance rendered with patient understanding. Special acknowledgment is made for the invaluable aid rendered by Professor Raymond D. Gozzi and his wife, Irene Murray Gozzi, in late stages of producing the manuscript.

Finally, grateful appreciation is expressed to my wife, Thelma Freeman Cary, for many suggestions which have been incorporated in the book, and particularly for forbearance and constant encouragement, which contributed immeasurably to the completion of the task.

H.W.C.
Amherst, Massachusetts

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1

Beginnings

1825-1863

Shortly before noon on the morning of May 7, 1947, a group had gathered in the office of Governor Robert F. Bradford at the State House in Boston. They were there to witness the establishment of a new university — the University of Massachusetts. Hugh P. Baker, president of the State College, Ralph C. Mahar, state senator and chairman of the Committee on Education, various other distinguished citizens, and a committee of excited undergraduates had assembled to mark the transition of the land-grant college of Massachusetts into a new stage of its existence.[1] The moment had arrived in which the Commonwealth was to dedicate itself to expanding the educational opportunity of its qualified youth.

With a flourish of his pen, Governor Bradford signed the Act. Cameras clicked, faces beamed, and congratulations were exchanged. The jubilant undergraduates, led by Michael Donahue ('49), took the occasion to invite the governor and the entire legislature to Amherst to visit the institution which had just been legally transformed into a university. The governor and many of the legislators accepted, making their visit on May 17.

The campus in Amherst had shown unusual activity all year. Veterans in large numbers had returned from the war, enrollment was at an all-time high, temporary housing was in various stages of construction, and a branch of the college was being established at Fort Devens. In the midst of this the movement to create a university had been pushed with new force and had caught the imaginations of students and staff, as well as of many private citizens and legislators. A bill was introduced into the legislature and on the afternoon of April 28, the campus received the news that the university bill had been passed. Joyous ringing of the chapel chime touched off a spontaneous rally. Five hundred students gathered before Stockbridge Hall and cheers greeted the impromptu speeches by administration and student leaders. When the strains of the Alma Mater closed the celebration, more than one person said, "This is the last time we'll sing the Alma Mater as a *college*."

And now the Act had been signed. A hasty telephone call was made to the campus, and again the chime rang out, this time pealing "Happy Birthday to You." In the college store, Manager Hawley reduced the price tags on all college banners, and in the office of the dean, clerks brought from their storage places reams of entrance forms which read "University of Massachusetts."

University status was an achievement for which many had labored — students and faculty, trustees and alumni, leaders in the legislature and throughout the state. But it was an achievement that produced new challenges and prompted serious reflections. What was the full significance of this action? What would be the future course of this new university?

Whatever the answer to these questions, it was clear that this was not to be the university which Massachusetts Governor John A. Andrew had dreamed of in 1863, a state university of schools partly private and partly public gathered around Harvard College as their nucleus. And it was not the university in Boston which the leaders of the labor organizations had strongly urged in the 1930's. This university was to develop where Levi Stockbridge and William S. Clark had cleared land of stumps and brambles to create in 1867 the Massachusetts Agricultural College.

It was to evolve from the state college, which itself had emerged from the college of agriculture after 1930 in response to the changing social pattern of the Commonwealth. The new university was to express the third stage in the progress of the Commonwealth's policy of public higher education.

"This is not a culmination, but rather a beginning," senior class president Gordon Smith had stated on the steps of Stockbridge Hall. And President Hugh P. Baker, who was soon to retire, had quietly remarked, "I shall sit on the sidelines and watch the development of the University of Massachusetts, and I see many big things ahead."[2] No doubt there were many associated with the past history of the institution who reassessed the meaning of the Morrill Act of 1862 and the aims of the people of Massachusetts who had responded to it by instituting a public college.

* * * * * *

The forces which brought the American states in the 1860's to accept the concept of state-supported higher education had been generating a new concept of American democracy for nearly half a century. These forces, commonly referred to in the phrase "Jacksonian democracy," had become very evident in many facets of American life during the 1820's.

Political reforms swept away out-grown restrictions upon the right to vote and abolished other devices to limit freedom of self-government. Farmers called for easier land laws while urban toilers strove to improve conditions through political organization and occupational associations. Social leaders concerned themselves with other defects in the pattern of American democratic life. Reforms of every sort were in the air. This was an age of discontent, the age of America's adolescence.

Education provided, in this ferment, one of the richest fields for reform and advance. All kinds of ideas were proffered as Americans struggled toward a new ideal of universal education. Of the numerous proposals for better schooling, many would die untried, and several experiments would prove to be short-lived. On the other hand, in many states substantial improvements in education were achieved, among them the acceptance of the free public

high school, better common schools, public normal schools, and the first state colleges and universities. Both directly and indirectly helping to create these changes were many groups and individual persons dedicated to increasing the ordinary American's opportunities for self-improvement. Workingmen's organizations created mechanics institutes, reformers worked through the lyceum movement, and numerous private groups lent their energies to the organization of libraries.[3]

It was inevitable that the architects of the new democracy should criticize the private colleges as well as the academies which prepared youth to enter their halls. The classical college curriculum, based upon philosophy and theology, natural history and mathematics, Hebrew, Greek, and Latin — the system which had been excellent for the training of clergymen and educators, and to some extent of doctors and lawyers — suddenly seemed unsuited to the needs of the era. Critics called the existing system a stronghold of conservatism, the training ground of a social elite. To the new leaders the solution must be found in another type of college which would make available to the children of farmers and mechanics the opportunity to gain the higher training they needed to take their places in American society.

In New England, a region just entering its third century, there were many who regarded the call for changes as merely further evidence of decay. To them the popular agitation — the assault on long-accepted values — was symptomatic of forces of disintegration which had been at work for some two decades. The death of the Federalist party, the weakening of Puritanism, the decline of New England's rural population as a result of migration to recently opened western lands or to the cities where industry was making rapid strides — all of these changes had generated a deep sense of alarm. "Our New England prosperity and importance are passing away. . . . The events of the times . . . have bereft us of our commerce," mourned young Daniel Webster.[4] To some it seemed that "the East is breaking up."

To others, however, there was no cause for gloom. They felt that the evident signs of transformation and all the seething

unrest could lead to a new and better society. The decline of agriculture and commerce would not terminate New England's economic prosperity, nor would the migration of her older families sap her vitality. Ralph Waldo Emerson felt "as gay as a canary bird to think that the destiny of New England is to be the manufacturing country of America."[5] And Daniel Webster himself did not decide to emigrate, but moved instead into Boston, there to begin his spectacular career.

It was entirely logical that New England should have become deeply involved in these new ideas and movements, many of which, in fact, originated within her own boundaries. Out of her Puritan churches came the spiritual movement of Unitarianism, followed shortly by the Transcendentalism of her intellectuals. From Concord, Ralph Waldo Emerson sought to free the minds of men from the shackles of ignorance and prejudice. Harvard University was establishing itself as the center of American learning.

The impulse for educational change and advance was powerful in New England, and one of its results ultimately was Massachusetts Agricultural College, the predecessor of the University of Massachusetts. The agricultural college had its main root in informal educational efforts to improve the lot of the farmers; but efforts to improve the lot of the expanding industrial population soon also became important.

The first suggestions for agricultural improvements in Massachusetts had been heard at an early date. Massachusetts was one of the first four states to establish a state-wide society for the improvement of agriculture (1792). For many years this organization attracted only a small number of gentlemen farmers into its membership, but by 1820 almost every county in the state had its local agricultural society. Elkanah Watson of Pittsfield at this time was making the cattle show a popular medium for the public demonstration of the lessons of scientific agriculture.

Despite all this, the transmission of useful information to owners of small farms was painfully slow. For the average farmer, content with the ways which he had inherited from his forebears, looked upon these exhibitions with idle curiosity and dismissed

the lectures as mere "book learning" which might possibly be useful to those who had leisure time. Little attention was paid to exhortations such as those of Theodore Sedgwick, who told the Berkshire Society in 1824, "We must educate our people so that every man shall have a just sense of his own value and importance as a citizen, with a good coat for a holiday and a Sunday, so that he shall consider it a dishonor to be ignorant, a disgrace to be a common drunkard."[6] Nor did the editor of the *New England Farmer* elicit any more ready response with his most practical appeal in 1822 that "it costs a farmer who owns one hundred acres more to maintain the worms in his garden and cornfield . . . than it would to bring up a family of children, and send one or more sons to an agricultural college (if we had such an institution)."[7]

This reference to agricultural education, however parenthetically presented, was indicative of a developing interest in its possibilities in the 1820's. Here and there in Massachusetts efforts were being made to promote instruction in agriculture in some of the preparatory schools. Governor Dummer Academy in 1824, and Deerfield in the following year, actually introduced such a course but did not attract much support from the state agricultural society or the agricultural press.

The initial support for the cause of schooling for the farming population was to come more substantially from people who were concerned with education generally. Thus, an important impetus was given to the cause of agricultural education in 1826 when Thomas B. Waite founded the *American Journal of Education* in Boston. "The spirit of inquiry, which has of late years extended to everything connected with human improvement, has been directed with peculiar earnestness to the subject of education," wrote Waite, and the variety of topics covered in the first number of his Journal attested to the breadth of this spirit of inquiry. The topics ranged from the subject of infant schools to that of a national university, and included high schools, schools for girls, academies, agricultural seminaries, and mechanics' institutes and universities.

It was not long before this newly awakened interest brought forth proposals for action. A Greenfield resident had begun in 1825 to agitate for a school of agriculture to be located in Deerfield. It should be a new type of school, superior to the common schools, which, he affirmed, fell short of making students into "scientific men," yet not comparable to Harvard University which required too much time and expense. Let this more practical institution be no "nursery of dissipation and indolence, but let it promote science, patriotism and liberty."[8] In the same year an interested group of Boston's leading men had actually drafted a curriculum for an agricultural school and invited contributions for its establishment. Hall J. Kelley, the spokesman for this group, also felt that the new system of education would "bear the fruit of virtue and patriotism on every branch."[9]

The most interesting outcome of this discussion, however, resulted from a petition which came to the legislature in the following winter from the town of Stockbridge. The petition was a request for a study of the advisability of establishing a state seminary to supply "economical and sufficient instruction in the practical arts and sciences to that class of persons who do not desire or are unable to obtain a collegiate education."[10] Acting promptly, the legislature had voted the study and established a committee of three for the purpose.[11] The chairman of this group was Theodore Sedgwick, Stockbridge's representative in the General Court and president of the Berkshire Agricultural Society. Sedgwick was a retired lawyer who had already identified himself with other new movements of liberal thought.[12]

The report which the Sedgwick Committee submitted in the spring of 1826 was a progressive document; it charted a course in practical education almost identical to that which was to be established in land-grant colleges some forty years later.[13] Sedgwick and his colleagues had captured the spirit of the developing social revolution and designed an educational pattern which would serve its purposes. They proclaimed an educational Declaration of Independence from the classical training so deeply entrenched in the private colleges. The French and Spanish languages would

replace Latin and Greek because "we are a commercial people, and, as the interests of trade are better understood, the freedom of intercourse among nations will increase."[14] Political economy, geography, and American history would be included because they were regarded as "national subjects," which should be pre-eminent in the mind of every American boy. A prominent place was given to instruction in modern sciences, most of which were then in the beginning stages of development. The report recommended the inclusion of natural philosophy[15] which it broke down into the subjects of chemistry, hydrostatics, pneumatics, optics, astronomy, mechanics, botany, geology, and mineralogy. Thorough attention would be given to training in writing and speaking, and there should be no neglect of the principles of moral philosophy. Upon this basis was imposed a structure of utilitarian training, which would include the study of agriculture and horticulture, drawing and mathematics, surveying and "war."

On the matter of financial support the Committee proceeded with caution, for Governor Levi Lincoln had already warned that a new source of revenue would have to be found if the public was to incur the expense.[16] Acting on the principle that the cause should not be jeopardized by undertaking too much, the authors sought a way of distributing the cost to lighten the burden. The land for the school, which was to include an experimental farm, should be supplied by the community in which the college would be located. For the buildings and equipment they estimated a need of $30,000, and they offered alternate plans for securing it, one calling for public support and the other making no demands upon the state treasury.

The Committee preferred that its new seminary should be supported by the government, and rested its case on moral and social values. The world, it philosophized in its report, was divided into two classes, "the governors and the subjected." Education gave the few governors their power, and lack of it resulted in a state of imbecility and degradation for the many subjected. "It has been believed that the reverse of this could not exist in nature. We, in these free states, on the contrary, are of the

opinion that nature points out no such thing . . . ."[17] The argument went on to give the seminary a role in the school system of the state by making it "a nursery for schoolmasters."[18] Public education would be improved if the schools did not need to depend upon young teachers who were engaged only temporarily while preparing for college. Therefore it was suggested that the legislature make an annual appropriation of $20,000 in each of two successive years, and also create a "Literary Fund" to yield $5,000 annually over the next ten years.[19] The Committee was confident that rapid development would make the agricultural college self-supporting in a reasonable period of time.

But if the Commonwealth would not provide the hoped-for degree of support, the alternate plan suggested that the college be a semi-private one, a private corporation with a public board of trustees. The latter would be made up of the governor, lieutenant governor, and eight others who were to be elected by the legislature. Corporation members would include the trustees and all those who would donate a minimum of $2,000 each. They would have the authority to establish a school with a farm, the clear income from which was not to exceed $20,000.[20]

The Sedgwick Committee had presented a seminal proposal, but the seed fell on barren soil. The editor of the *New England Farmer* urged his readers to give it their thoughtful study, while a few public figures gave it mild support. To John Lowell, president of the Massachusetts Society for the Promotion of Agriculture, it seemed to be a good plan, and very much needed. Dismayed at the poor quality of American common schools, he expressed in a letter to Sedgwick the feeling that "not one man in a hundred can write easily and work a sum in the rule of three." He was astounded that "our mechanicks and our farmers with their houses full of children should have been contented to [sic] long to pay for the support of establishments chiefly designed for the rich . . . while no portion of the publick contribution was applied to the special aid and the benefit of the great mass."[21] There is no evidence that the proposal elicited widespread support, either from the press or from the agricultural societies. Doubtless the editor of

the *Hampshire Gazette* represented the feeling of the general public when he wrote that a common school training was sufficient for all the ordinary purposes of life and that farmers and mechanics could neither afford the cost nor spare the time to send their sons to college, and most certainly could not stand the taxes required to educate the sons of others.[22]

If the state seminary idea did not arouse the enthusiasm of the class for whom its benefits were intended, it did not, however, go unnoticed by the educators. Here and there were heard suggestions which, while accepting some of the rationale for the new system, seem nevertheless to have been offered in the spirit of counter proposals. Thus, Jacob Abbot, a faculty member at the newly founded Amherst College, had persuaded the president and his colleagues in 1826 to vote approval to a program of studies that would parallel the traditional curriculum. By this vote, which was never carried out, the college was to have created a department of education and another in the practical arts, with the understanding that the teacher training would not start until the money was available and that the mechanics' program was considered to be of "less immediate consequence."[23] Another proposal which gave priority to the training of teachers was offered by James Carter of Lancaster, a leading advocate for improvement of the common schools in Massachusetts. Carter's proposal succeeded in gaining some political support from the governor, and was referred for study to a special commission headed by William Calhoun of Springfield. But the recommendation of this group that the state establish a normal school with a practice school for children from six to fourteen years of age was also to fail of adoption. "Some other way of educating teachers, agriculturalists and mechanics would have to be found," concluded the tax-conscious editor of the *Hampshire Gazette*.[24]

Interest in educational reform in Massachusetts subsided for a few years after the Sedgwick and the Carter proposals failed to attract support. When a new wave of enthusiasm developed in the middle of the next decade the needs of the farmer had been almost forgotten. The educators of the 1830's gave their primary

concern to the improvement of the common school. Led by Horace Mann, they had organized to marshall public opinion for their cause. The establishment of the American Institute of Instruction in 1831 soon was followed by the creation of the Massachusetts Board of Education. In the latter the school administrators had acquired a public bureau to support their cause, an advantage the farmers would not enjoy for another twenty-five years.[25] Such financial support as the state was able to muster for education during the next few years went to the establishment of three normal schools. Plans for special schools for the farmer and the mechanic were laid aside for another decade, and the efforts of the private colleges to obtain from public funds support which might have enabled them to institute "practical" education were unavailing. The workers turned to other means, and the farmer, who never had been charmed by the dream of a college education as a path to prosperity, apparently ceased to be perturbed over the westward drain of young men.[26]

Interest in the improvement of agriculture was not entirely dead in the decade of the 1840's, but what concern there was seems to have centered more in the private colleges and universities than in the agricultural societies. Basic sciences such as chemistry and geology were undergoing substantial development, and with them grew an interest in their application to agriculture. At Yale, Benjamin Silliman, Jr. and John Pitkin Norton contributed heavily to the growth of agricultural chemistry. The treatises of the German scientist Liebig were widely circulated in America and often quoted by lecturers before agricultural societies.[27] In Massachusetts, concern for scientific improvement of agriculture centered in the Connecticut Valley section, where scientists on the faculty of Amherst College, and particularly Edward Hitchcock, the college president, played active roles in the affairs of the local agricultural society. In 1838, when the state legislature determined to make systematic studies of the state's natural resources, it found the needed experts in this western area. Hitchcock was appointed to conduct a major geological survey, and Henry Colman of Deerfield was chosen to carry on an agricultural survey. To those who

were truly interested in the progress of agriculture, the possibilities of utilizing these studies for material improvements in agriculture were enticing. "If the facts and suggestions submitted in his [Hitchcock's] report are duly attended to and improved, the survey cannot fail to be the commencement of an era in our agriculture," commented the secretary of the Senate Committee on Agriculture.[26] Although these reports might have become the basis for improving the state's agriculture, they received little attention from the leaders of the societies. And in failing to establish a State Board of Agriculture, which Hitchcock had recommended, the legislature delayed for more than a decade the adoption of a policy for more support to agriculture by the state government.

But the Amherst leaders did not abandon their efforts to bring the benefits of science to the tillers of the soil. One such attempt was made through the introduction into the Amherst College curriculum of a series of lectures on agricultural science by Professor Charles U. Shepard. Of greater consequence, however, were their efforts to awaken the interest of the agricultural societies. Hitchcock in 1845 was proclaiming at Northampton that "the day has gone by . . . when we reject and treat contemptuously what has been called book farming." He felt that the progress of science, the new railroads and canals that opened the Connecticut Valley to broader markets, and the awakening of the intellectual and moral power of New England all pointed to the need for scientific farming.[29] And Shepard warned his Connecticut Valley farmer audiences "either to participate in the movement or else see their sons quitting their homes for the West, their daughters entering the cotton mills and their farms sliding from under them into more enterprising hands." The agricultural renaissance he felt would redeem New England by removing the "incompatibility between the country and the city life" and diverting the vogue for the conquest of Mexico into "reconquering the wastes within our borders."[30]

In 1847 Professor Shepard concluded that the time for action had arrived, and he placed a plan squarely before the Hampshire, Franklin and Hampden Agricultural Society. His plan called for an

agricultural college to be located in the Connecticut Valley, with an experimental farm, botanic garden, cabinets, and other needed apparatus. No "nursery of dissipation and indolence" was wanted here; rather, a solid school with a "severity of discipline equal to that of West Point."[31] Immediately following the address, Edward Dickinson, the treasurer of Amherst College and a former president of the agricultural society, successfully moved that application be made to the next legislature for the chartering of such a college. For the second time, Western Massachusetts leaders had seized the initiative in the effort to establish a state-supported institution of higher education.

Although the legislature acted favorably upon the Hampshire County petition by issuing a charter for a Massachusetts Institute of Agriculture, no school ever resulted. The legislation, however, did focus the thinking of the governmental leaders and may have contributed in some small measure to the establishment of educational policy in future years. The charter had provided that a school was to be built in a town on the banks of the Connecticut River, or immediately adjoining it. It was to be administered by a Board of Trustees, which should include Edward Hitchcock of Amherst, and William Calhoun and Samuel L. Hinckley of Springfield. Upon the board rested the responsibility for obtaining sufficient financial resources from private sources to make the start. A sum of $15,000 would be contributed from the public treasury as soon as the trustees had been successful in raising an equal amount.[32] This policy of giving State aid to private institutions was traditional in Massachusetts.

In the meantime, agitation for education of mechanics and agriculturalists had also been revived in Eastern Massachusetts. William B. Rogers, who later was to found the Massachusetts Institute of Technology, was dreaming of plans as early as 1845 for a school that would include programs in agriculture and horticulture.[33] But for the next thirty years Boston's major spokesman for agricultural education was to be Marshall P. Wilder. This man had demonstrated his capacities for organizing by founding the New England Horticultural Society in 1829 and by establishing

the Massachusetts Academy of Agriculture, a corrective school for boys, at Westborough in 1845. Four years later, when serving as president of the Norfolk Agricultural Society, he seriously took up the cause of agricultural education. Speaking to an audience of public leaders that included the governor and lieutenant governor, Senator Daniel Webster, ex-Governor Levi Lincoln, Horace Mann and Charles Francis Adams, he made a stern plea for the establishment of an agricultural college.[34] Subsequently resolutions were presented to the legislature seeking the creation of a college, the establishment of a State Board of Agriculture, and increased appropriations for the agricultural societies and for teaching courses in colleges and normal schools.[35]

The most significant result of these efforts was the bringing together of Hitchcock and Wilder, the two leading spokesmen for a college. Because of the resolutions, the legislature had authorized a study commission, with Wilder as its chairman. Moving promptly, the commission made arrangements with the Amherst president, who was then in Europe, for a systematic study of agricultural schools in foreign lands. After three months of travel in the British Isles and Western Europe, during which he had been more successful than he had anticipated, Hitchcock submitted a thorough report.[36] He asserted that "the time is ripe after years of discussing"; education carried on by the societies, the common schools, and the classical colleges was fine, but not enough. Massachusetts must have a college of agriculture, and it must have public support.

The plan which Hitchcock submitted was concrete. His curriculum was similar to Sedgwick's but with less emphasis upon the teaching of English and the social studies. Agricultural study was to be supported by a thorough training in the basic sciences, while some work in the ancient and modern languages he felt "would render the school more attractive and respectable."[37] A president, five professors, and a farm superintendent would be needed to start the college. Locating the school near an existing college would make for some economy in instruction and the use of equipment. A state appropriation of $30,000, together with private

donations of some $20,000, and tuition fees of $4,000, he thought would be adequate for a respectable start. Hitchcock left no room for doubt as to the state's duty to provide liberal support.

Although the Hitchcock report had a great impact upon educators, it met with little favor in the halls of the legislature. Clearly, the creation of a larger body of favorable opinion was needed, and Marshall Wilder set about to create it. Taking a leaf from the book of those educators who had prepared the way for Horace Mann by first creating a State Board of Education, he called together in 1851 a convention of delegates from the local societies to develop measures for their mutual advantage and for the promotion of the cause of agricultural education.[38] From this meeting came the State Board of Agriculture, a voluntary and unofficial body in its first year, but made a legal agency of the Commonwealth in 1852. Wilder was its first president, and Hitchcock and other friends of education were elected to membership.

The successful creation of the Board of Agriculture did not lead immediately to renewed efforts to open a school of agriculture. But it did serve to bring into closer association the individuals who were most interested. During the decade of the 1850's only one new effort was made to promote such a college. In 1856, the legislature had issued another charter for a Massachusetts School of Agriculture to a group of Eastern Massachusetts leaders. Marshall P. Wilder was made the president of the Board of Trustees and associated with him were Charles C. Sewall, Seth Sprague, Benjamin V. French and others who were active in the agricultural societies of the eastern counties.[39] Upon these leaders devolved the full responsibility for provision of financial resources, for there was no promise of public assistance in the enabling act.

The corporation's effort to raise money in Boston met with little success, and in 1860 the charter was shifted to Springfield. For three years more a group of Western Massachusetts men, which included Chester Chapin of Springfield and William S. Clark of Amherst, with Wilder as their president, struggled to accomplish their purpose. By 1862 they had obtained pledges for

about $38,000, but the war and other factors were making the prospects of a purely private college dubious.[40]

War clouds hung on the national horizon as the decade of the 1860's opened. It scarcely seemed possible that time, energy or resources would allow for improvements in education. But despite these distractions, there seemed to be a sense among Massachusetts leaders that the time was ripe for determined efforts. Grants which had been made in 1859 by the legislature to Harvard University and to Amherst, Tufts, and Williams Colleges encouraged the promoters of several new college projects to renew their efforts.[41] Marshall P. Wilder, somewhat discouraged with the prospects for his school of agriculture, now advocated through the Massachusetts Horticultural Society the creation of a Massachusetts Conservatory of Arts and Sciences. In 1861 he also joined forces with William B. Rogers in promoting the Massachusetts Institute of Technology when Rogers agreed to add to his plan provisions for a school of pomology and horticulture. And when the charter for the Institute was granted, Wilder was appointed as one of the trustees.[42]

In the meantime the hopeful members of the State Board of Agriculture tried to rally the flagging spirits of those who looked forward to a college of agriculture. In 1859 they had called upon a committee of three of their members, Marshall Wilder, Simon Brown, and Richard S. Fay, to suggest a comprehensive state plan for agricultural education. These supposed ardent workers for a college, however, disappointed their backers when they recommended that the state make the beginning effort by introducing studies such as geology, chemistry, physiology, and botany into the public schools.

In the next year the State Board elected still another committee and instructed it to cooperate with any who might have a plan for an agricultural school. In this group were Wilder, Freeman Walker, and Charles G. Sewall from Eastern Massachusetts, and William S. Clark of Amherst and Levi Stockbridge of Hadley — both spokesmen for those who were interested in having the college on the banks of the Connecticut River. Perhaps the initiative in

the State Board for the promotion of this project was now passing to the westerners, for it was Stockbridge who introduced the resolution in the annual meeting of 1861 to the effect that the Board believed that the time for action had arrived.[43]

That this belief was shared by others outside of the Board was evident in the fact that the legislature received in this year several petitions, some with many signatures of voters, asking for state aid for education in agriculture. The Springfield group which already had a charter requested that the state donate up to $50,000 to equal the amount which it expected to raise from private sources. From the town of Northampton came a request for money to supplement a bequest which was available to it for educational purposes. And, finally, the Powers Institute in Bernardston asked an appropriation to enable it to add a professorship in agriculture to its staff.[44]

But the General Court was watching Congress in Washington for signs of renewed action on the Morrill bill. Further action in Boston was postponed by referring all petitions to a study group which was advised not to hurry with its report.

The Morrill Act, signed by Abraham Lincoln on the second day of July, 1862, assured the Commonwealth of Federal assistance and brought her leaders to the point of action. There was little doubt that the help would be accepted, but in what way would Massachusetts offer higher education to the sons of her farmers and mechanics? Should she establish an independent college of agriculture, or give her assistance to the existing colleges to develop appropriate programs for the purpose? Should there be separate schools of technology and agriculture, or, perhaps, a University of Massachusetts? From what side would the leadership come to help galvanize the state into action?

Governor John A. Andrew undertook to supply direction in this maze of questions. On January 9, 1863, he presented to the legislature his "great plan." Massachusetts, he felt, should have a "university which would be worthy of the dream of her fathers, the history of the state, and the capacity of her people."[45]

The plan which the governor outlined differed radically

from any that the legislature had so far considered. If Massachusetts were "to retain her wonted placed in noble works," he argued, she must be assured that the new institution which she was about to create should be one of excellence in teaching and in research. This could best be accomplished by adding additional schools to the facilities of Harvard University. One of these would be a college of agriculture, facilities for which Harvard already possessed in the Bussey estate at "Woodland Hill" in Roxbury, which included over two hundred acres of land that had been willed to the University for these purposes. The combination of these private resources with the land-grant funds seemed to the Governor to offer an ideal solution.

After nearly fifty years of discussion and weighing of proposals for educating persons of limited income, Massachusetts had reached the moment of decision. Governor Andrew's university plan was one of several suggestions on how to obtain the best results from the Morrill Act. William Rogers applied to the legislature for assistance to his recently chartered Institute of Technology, while Amherst and Williams Colleges also invited aid on the basis of their lecture courses in agricultural science.[46] The legislature also had the proposals for agricultural education which had come in from Springfield, Northampton, and the Powers Institute in Bernardston. The decision which was about to be made would be a critical one.

The task of formulating a policy was entrusted to a special committee of the legislature, with Senator Erastus Haven as its chairman. Haven, a graduate of Wesleyan University, was an experienced college teacher, a practicing Methodist minister, and a journalist of wide reputation. He had begun his teaching in secondary schools but soon received an appointment to teach English, Latin, and history at the University of Michigan. When he moved to Boston to take up the editorship of *Zion's Herald*, his experience in college circles immediately attracted the attention of Massachusetts educators, and soon he was given a place on the State Board of Education and on Harvard's Board of Overseers. He was, without doubt, the most experienced member of the

Massachusetts Senate in the problems of collegiate education, although he had little experience in agriculture.

For two months the committee listened to the arguments of many spokesmen. President Thomas Hill and Professor Louis Agassiz of Harvard supported the governor's university plan, while industrialists such as Edward Atkinson of Boston and Harrison Loring of Lowell lent their support to the cause of the Institute of Technology. Several members of the State Board of Agriculture appeared before the committee, but perhaps the most vigorous advocates of the cause of agricultural education were two representatives from Western Massachusetts, Professor William S. Clark of Amherst College, and Levi Stockbridge, a farmer from the town of Hadley.[47]

Although the question of educational policy stirred the imaginations of many individuals, the press was strangely apathetic. The *Boston Advertiser,* the newspaper which reported state politics most fully, gave its editorial support to the governor but printed little news of the committee's doings. The *New England Farmer,* still the leading agricultural journal of the region, was against the whole proposal of higher education for farmers, feeling that it would become "an apple of discord among learned professors and influential politicians, and an object of merriment to the practical farmer."[48]

The report of the Haven committee was completed by the end of March and immediately laid before the appropriate legislative committees. Although there had been strong support for the university plan at the outset, this appears to have weakened under the pressure of argument by the industrialists and the farmers. The committee did not recommend the creation of a state university, nor did it desire to see the Federal funds dispersed among existing private colleges. Instead, the report urged that the Federal assistance be used to assure the establishment of new and independent institutions. "Massachusetts demands an agricultural school . . . and she demands too, a school in which the science of machinery . . . shall be taught." Both should be professional schools with high standards, standards "for young men

and not for boys." That there were many advantages to be gained from locating a university in the Boston area the committee freely admitted; but it reasoned that these favored the school of technology and did not apply equally to a school of agriculture, which seemed to belong in the country. Supporters of a rural location argued that the expense of the student's board would be greater in the city, that young farmers would not be congenial with students preparing for other professions, and that life in proximity to a great city would make more difficult the enforcement of manual labor and the preservation of student morals.[49] Warning that no enormous sum would ever be realized from the Federal land grant because of the glutted condition of the land market, the report urged that the Commonwealth dispose of its land grants as quickly as possible and use the resulting fund as an inducement for "liberal expenditures of money from other sources."

Such was the policy which had been projected for Massachusetts' use of land-grant aid. Erastus Haven advised that it be used for colleges entirely independent of the older institutions, and moreover that separate colleges of agriculture and of engineering should be encouraged. To provide for aid to both, it was recommended that one-tenth of the fund be used to buy an experimental farm, and that the income from the remainder be divided to give two-thirds to the Massachusetts Agricultural College.

The committee had done its work thoroughly, and its report was a call for action. Submitted with it were three bills needed for the legislature to put the recommendations into law. Included also was a model plan for the recommended college, complete with buildings, faculty, budget, and curriculum. Massachusetts would do well to follow this plan and establish a college large enough to accommodate 150 students, possibly in the central part of the state. Financial support should be shared by the state and by private sources, with $50,000 from each needed in order to launch the project. The committee was of the opinion that four scientists and one professor of literature and moral philosophy would provide a staff sufficient to give instruction similar to that which was

offered in Pennsylvania's agricultural college. Jeffersonian agrarian philosophy was reflected in the statement that there is "a growing feeling in the community for what is called physical education; and surely no plan can contribute more directly to the end desired than three hours of daily labor upon a farm, for while the body is constantly strengthened the intellect is constantly improved."[50]

Little debate was necessary to persuade the General Court to enact the Haven recommendations. The conditions of the Morrill Act were accepted on April 18, 1863, and nine days later the measure to divide the land-grant revenue became law. On April 28, the charter for the new college was passed, and it was signed by the governor on the following day. To a board of fourteen trustees, most of whom had appeared before the Haven committee as representatives of the State Board of Agriculture, was entrusted the task of creating the new college, but these trustees were not given the money recommended by the Haven committee.

The public paid little attention to the action. Simon Brown, editor of the *New England Farmer* ignored it, except for one brief reference to the committee's report. And the disappointed *Boston Advertiser* commented one week before the final vote, "It is sufficiently clear we think, that the matter was wholly crude in the minds of the committee . . . and it may be doubted whether it has since received any such thorough discussion as is needed in order to settle it with a fair prospect of a satisfactory result."[51]

For the third time, Massachusetts had entrusted the future of a school of agriculture to the hands of a corporate body of trustees. In this latest action, however, was to be found evidence of a wider support and a deeper commitment than previously. By accepting the aid of the Federal government, the state had engaged to create a college within five years and to maintain an endowment with an income not lower than five percent, or return the aid. Farm leaders, particularly in Western Massachusetts, had rallied to the support of the idea. Proposals and plans had been studied, and a positive conception of the nature of the school was reached. Massachusetts, unlike many other states, would not attach her college of agriculture to a technical college, nor would she follow Governor

Andrew's advice to expand Harvard College and create a major university. The realization of the hopes of a school with standards "for men," a school which should be "worthy of the dream of her fathers," was now the sobering responsibilty of the Board of Trustees.

2

Creation of a College

1863-1867

Massachusetts established more private colleges in the era of the Civil War than she had in any previous decade.[1] None of these colleges, however, faced more problems than did the newly chartered State College of Agriculture. Although the legislature had reacted promptly and positively to the Morrill Act, it had nevertheless failed to commit the Commonwealth firmly to a policy of state support of the new institution. Federal funds would be used to provide the necessary land and a modest annual income. Local funds, raised in the community in which the college should be located, would be used to erect and equip the buildings.[2] And implicit in the wording of the legislation was the thought that salaries and other operating costs would be met by income from tuition fees. Although the Haven Report had recommended an appropriation of $50,000 from the state treasury, there had been no provision in the enabling legislation for tax support of any kind. In the hands of the newly elected Board of Trustees rested the heavy responsibility to establish the college and to gain financial support from the state.

The men who were chosen for this task in 1863 had been

leaders in Massachusetts agriculture for many years and were friendly to higher education. Marshall P. Wilder had a national reputation among agriculturists and horticulturists, and also served on the board of trustees of Massachusetts Institute of Technology. Others from the eastern half of the state included Nathan Durfee of Fall River, Allen W. Dodge of Hamilton, and Charles G. Davis of Plymouth. Prominent among the westerners were Paoli Lathrop of South Hadley, Phineas Stedman of Chicopee, and William B. Washburn of Greenfield. Affiliation with the state government resulted through the ex-officio membership on the board of the governor and the commissioners of education and of agriculture. Although the corporation was not subordinate to any administrative bureau, it nevertheless found its closest relationships with the Board of Agriculture, for nine of the college trustees either were on the Board or had recently been on it. In the next year the members of the Board were constituted as overseers for the college, and Charles L. Flint, the secretary, became the college secretary as well.

For their first president the trustees turned to New Hampshire, electing Henry F. French of Exeter. The new leader was a lawyer who had developed an active interest in progressive agriculture as a hobby. A graduate of Dartmouth College, he had settled on a farm in the southern part of the state where he had engaged in experiments in soil improvement that attracted attention. His selection as president by the incorporators of the Massachusetts Agricultural College apparently resulted from his publications and his repute as a farmer, for he had no experience as an educator. Several articles which appeared in the *New England Farmer*,[3] the region's most widely read farm journal, and a book in 1859 entitled *Farm Drainage*, had marked him as a leader among those most concerned with the application of science to agriculture. His elevation to the office of college president plunged him into a maze of problems which were to be intensified by controversy with a reluctant legislature, by competition among communities eager to become seats of higher learning, and by division within the Board over matters of curriculum and campus planning.

The initial problem in which the trustees were involved, that of liquidating the Morrill Grant, proved to be a knotty one and drew criticism of the Board from officers of the state government as well as from certain citizens. Under the provisions of the Morrill Act Massachusetts received shares of land scrip which she was forced to sell in open market. Disagreement developed between the trustees, who wished to make immediate sale, and the governor, who sought to obtain a greater return by arrangements for deferred sale. In the end the legislature sided with the college; for the second time it had chosen not to follow a recommendation of Governor Andrew on the subject of the Massachusetts Agricultural College.[5]

The sale of the land scrip was slow and discouraging. When, at length, the process was completed in 1868, the Commonwealth had realized only $236,307.40 instead of the $450,000 which optimistic leaders had led the public to expect. From the sale of the ten percent allotted for the purchase of land the college received $29,778.40, and her share of endowment in the first year amounted to $8,296.99. Disappointment sapped the confidence of the supporters of the college and may have contributed to the refusal of the General Court for four years to appropriate state funds for the erection of buildings. Years later the charge was made by President Goodell that the state had been victimized by "harpies and land sharks."[6] But Massachusetts had fared comparatively well; only Vermont and Connecticut among the northeastern states received a higher return, and several obtained less.[7] The basic difficulty lay in the land policy of the Federal government, which had forced those states having no Federal lands within their borders to sell lands in a market already glutted as a result of the Homestead Act and tremendous grants to railroad corporations.

Because the state had thrown the burden of supplying money for buildings upon the citizens of whatever locality was selected as the site of the college, the choice of location was an urgent matter. News of the enactment of the college charter had revived the fading interest of five Massachusetts towns in becoming the seat of the new institution. Although groups in the Boston area had

shown considerable interest during the previous decade, the keenest interest now centered in the Connecticut Valley. The sole offer coming from the eastern half of the state was that of Mrs. Maria Cary of Lexington, who repeated a proposal which her husband had made without effect a few years earlier. To the college she would give her farm of 140 acres, together with stock and tools, which she valued at $50,000, and an additional cash donation of $25,000 with the proviso that equal amounts of $50,000 should be forthcoming from the state treasury and from private donors.[8] Possibly it was the uncertainty that the conditions of the proviso would be met that caused the trustees eventually to reject Mrs. Cary's offer, or maybe it was the insistence of the Connecticut Valley men; but the reason given was an intriguing one — the Cary farm was "too highly developed in grass" to offer sufficient challenge to soil tillers of the new college.[9] Presumably apprentice farmers must learn their trade under traditional frontier conditions!

The Connecticut Valley offered the strongest appeal, and one suspects that this was largely foreordained by the defeat which western farmers had administered to Governor Andrew. Springfield, where the Massachusetts School of Agriculture had made its most recent efforts to obtain support, now gave assurance of its willingness to meet the terms of the new charter. Trustee Phineas Stedman had persuaded the Hampshire Agricultural Society to offer a portion of its park upon the banks of the Connecticut River as the site for the college, but he had in reserve a farm of his own in nearby Chicopee if needed.[10]

Farther up the valley, the towns of Northampton and Amherst vied for the college. The *Hampshire Gazette,* while shuddering at the thought of spending $75,000 on mere education, nevertheless cheerfully urged its wealthier farmer readers to loosen their purse strings that the town might profit from the presence of this college.[11] On February 9, 1864, it was announced that $50,000 had been pledged and that the will of Oliver Smith seemed to offer possibilities of further help.

Meanwhile, interest in the college was developing in Amherst, across the river from Northampton. For more than a decade the

Hampshire County Agricultural Society had centered in this community. Here agriculturists and educators met in a common purpose. Several members of the Amherst College faculty were listed in its membership, and that institution's College Hall was utilized for its annual meetings.[12] To the Society's platform came the nation's leading spokesmen for agricultural chemistry, scientific stock breeding, and all phases of plant and animal production. Amherst also had vigorous representatives in the state government who were deeply concerned with the development of a college. William S. Clark of Amherst College, and Levi Stockbridge, a farmer of neighboring Hadley, were both members of the State Board of Agriculture and both held seats in the House of Representatives in 1864. They had already played leading roles in obtaining the college charter, and both would play an increasingly important part in the history of Massachusetts Agricultural College.

Amherst's efforts to win the new college were persistent ones, which eventually met with success. By January of 1864 notice had been given that $75,000 would be raised in Amherst by subscription. One third of this was promised by Amherst College, the remainder by a number of public-spirited citizens. Colonel William S. Clark seized the occasion to assure the town that it faced no serious competition from Northampton because, he felt, her people were lukewarm and the legal encumbrances which the college would meet in the Smith will removed the likelihood that the Trustees would undertake an arrangement under it.[13]

But almost as soon as the promise had been made in Amherst there developed a move to transfer the responsibility for the citizen's share from subscribers to the taxpayers. Now this issue was given public airing in excited sessions of several town meetings. On the side of the tax proposal were Clark and Edward Dickinson, Amherst College Treasurer. Associated with them also were Colonel Ithamar Conkey and Luke Sweetser, both past members of the State Board of Agriculture. Standing against the measure was the voluble innkeeper, Albion P. Howe, defender of the low tax rate and of the interests of certain feminine taxpayers

who were not entitled to vote. But this opposition was unconvincing, and the measure carried by a vote of 79 to 9.[14]

Northampton, however, showing more vitality than Colonel Clark credited to her, succeeded in delaying Amherst's plans for another year. When Amherst's enabling measure came before the House of Representatives in Boston, it met defeat through the political legerdemain of Erastus Hopkins, representative from Northampton.[15] On this occasion Colonel Clark's oratory was unavailing, and his cleverness in presenting a petition signed by twenty-seven widows and nine unmarried feminine taxpayers failed to sway the General Court.

In the meantime the Board of Trustees, equipped with courage but not yet supplied with cash, had decided upon the location. Visits to the proffered farms had been made in April and May, and Amherst had been selected by a vote of ten to four. In their report to Governor Andrew the trustees, still mindful of his preference for connecting the college with Harvard's Bussey Fund of $250,000, offered the following justification of their decision:

> The farm at Amherst, in general natural fertility, diversity of soil, and adaptation to our purposes for the illustration of agriculture, is far superior to any other shown us. It is situated in an agricultural region of native New England farmers, who live and prosper by agriculture; where our students will find sympathy, and see that honest men can thrive by honest labor on the land, instead of seeing agriculture as in some parts of the state, despised by the poor, and the expensive pastime of the rich.[16]

The availability of housing in the town, and the proximity to the libraries and museums of Amherst College were also cited as advantages.[17] In a critical reply Governor Andrew could not refrain from reminding the trustees of their impassioned plea for a college independent of any other institution.[18]

But the trustees were not to be deterred by mere criticism. Henry French, by the fall of 1864, had sold all of the portion of the land scrip set aside for the purchase of a college farm and there was $26,582 in the till. To this the legislature had added $10,000

in 1864 but only as a loan to be repaid out of future land-grant revenue. In October the campus of 310 acres was purchased from six Amherst owners at a cost of $34,999.50. Seventy-three adjoining additional acres, desired by the trustees but beyond their immediate resources, were assured for the college when Nathan Durfee bought them with $8,000 of his own money.[19] In the flush of enthusiasm the trustees found the property ideally suited to their purposes, though admitting that the farm buildings seemed to have no permanent value. But the daughter of the first farm superintendent felt it was "depressing looking property" when she arrived on a bleak April day in 1867.[20]

Now M.A.C. had its farm, but its financial support was still far from being assured. The town of Amherst wrestled throughout the year of 1864 and into the following spring to redeem its promise. In all, eight meetings of the town were held, of which five were legal, to study various plans for subscriptions, assessments, or sale of bonds.[21] In the end, it was decided to renew the petition for taxing power, and, by special agreement with the neighboring town of Pelham, William S. Clark was returned to the legislature out of turn, for the purpose of sponsoring the bill. Success resulted from this move, and at a stormy town meeting in May, 1865, Amherst accepted taxation to raise the $50,000.[22]

Most of Amherst's money was made available in time to complete construction of the college buildings in 1867, and the remainder was conveyed to the trustees within the year. The private subscription of $25,000 was contributed by three friends of the new college, William Kellogg of Amherst, Nathan Durfee, and Samuel Williston, a manufacturer and public benefactor from nearby Easthampton.[23] An additional contribution of $10,000 had been made by trustee Henry F. Hills and his father for the development of the Botanic Garden.[24]

Beyond these funds, however, the college had for the time no support. The General Court, which granted one more "loan" of $10,000 in 1865, refused to go further in its support until after the college had opened. And private benefactions, which seemed to come to the other colleges so easily, were slow in accruing to the

benefit of agricultural education.[25] Perhaps the *Springfield Republican* had correctly read the public pulse when it concluded that Federal aid "had dampened private generosity" in Springfield, and rendered it doubtful that the new college could be successful with but "moderate" state aid.[26]

In addition to meagerness of support, other reasons contributed to slow the progress of the college. One of these was a serious discord which had developed within the Board over the campus plan. President French and one half of the group favored a plan which would have placed the central group of buildings upon the hillside on the eastern border of the campus. The other half wished to locate the college on the crest of the slope on the western border, which was known locally as "Chestnut Ridge." By September 1864, the controversy had attracted much interest among the voters of Amherst since they were paying for this construction. The Amherst College leaders now were split, for Treasurer Edward Dickinson presented a petition with twenty-eight signatures to support President French, while Colonel Clark out-did him with a list of over three hundred, including some of the twenty-eight, advocating the opposition's plan.[27]

The controversy was a sharp one and was not settled until thirty-two months, three architectural reports and one presidential resignation later. At its August meeting in 1864, the Board had accepted the president's plan. Shortly thereafter construction had started, and stone was being moved in from the College's new quarry in Pelham. But in October the action had been suspended, and consulting architects were hired in New York City. The report of Calvert Vaux and Joseph R. Richards affirmed the president's plan and called for the location of the main college building on what they regarded to be the most attractive spot, the eastern slope which faced out across the valley toward the Berkshire Hills in the west. Student dormitories and faculty homes would be placed on the very top of the ridge, while the central and western areas of the property would be kept open for farming purposes. The farm buildings would be placed along the northern boundary, where they would be readily accessible. In such buildings the architects

thought the college should be rich, while it remained "poor in structures proposed to contain collections of merely general interest."[28] Through the eastern section of the campus ran the county highway which would serve to set off the "pleasure grounds from the farm proper," the artistic and the theoretical phases from the more practical. The recommendation of bridges to over-pass this highway, based in 1865 on the inconvenience of frequent opening and closing of pasture gates, would have appealed to students in the automotive age as having been inspired. But this plan, with its basic good sense and artistic taste, failed to resolve the deadlock in the Board.

Shortly, the addition of D. Waldo Lincoln to the Building Committee and Henry Hills of Amherst to the Board turned the supporters of the Chestnut Ridge site into a majority and led to new efforts to resolve the issue.[29] Now an injunction halted further construction, while still another architect, the celebrated Frederick Law Olmsted, was called into consultation. Olmsted recommended the Vaux and Richards plan, but was more interested in the college buildings. In place of the large main hall, which he felt to be more appropriate for jails and reformatories, he proposed a group of four buildings which would resemble a New England village.[30] In this quadrangle there would be a lecture hall, a library, a science laboratory, and an assembly hall with gymnasium and armory facilities. This group, landscaped with gardens, lawns, and shade trees, would lend an appropriate setting for the education of Massachusetts' sons and daughters in the amenities of home and community life.[31]

But the majority of the Board was obstinate, and the advice of the architects was abandoned in favor of its own desires. In August the issue was decided in a stormy meeting, marked by another battle of voters' petitions which were presented by Edward Dickinson and William Clark. President French lost his campaign, and within a few days his resignation was submitted.

The need for action now was urgent: provide a college within five years, read the Morrill Act, or forfeit the grant. Leadership that would quickly restore harmony was required. For this purpose

the trustees in November selected a professor who was known widely both among New England's academic leaders and in the circles of agricultural men of Massachusetts. They called Paul Ansel Chadbourne, professor of chemistry and natural history at nearby Williams College, to become the second president.

Chadbourne, like French, was born in New Hampshire and had lived in Exeter while attending the academy there. He had made a brilliant record at Williams College, where he became a friend of Mark Hopkins. Following his graduation he had studied at the Theological Institute of Connecticut. Although he never was ordained into the ministry, his training served him well in several college pulpits in later years. After two years of teaching and administrative work in secondary schools, he was called to his alma mater at the age of thirty. In this position his interests had broadened as he gained in experience. His scientific interests led him to Greenland, Iceland, and the Scandinavian Countries and eventually to membership in the Royal Society of Northern Antiquities in Copenhagen. An interest in medicine, that had developed before his academy days at Exeter, now drew him into lecturing at the Berkshire Medical College in Pittsfield, and eventually brought him an honorary degree in medicine. He also divided his teaching time between Williams and Bowdoin for a number of years, in addition to finding time for chemical lectures at Mary Lyon's Mount Holyoke Seminary. National recognition came to him in 1859 in the form of an appointment to lecture at the Smithsonian Institution.

In the meantime Chadbourne had become interested in practical affairs, both public and private in nature. In Williamstown he was involved in the establishment of the town's largest cotton mill. Politics, too, had attracted his attention. Having become a firm adherent of the new Republican party, he was elected to a seat in the Massachusetts Senate in 1865 and 1866.

It was through his associations in Boston, without doubt, that Chadbourne was led to the presidency of the Massachusetts Agricultural College. During his first year in the Senate he had been appointed to the State Board of Agriculture, and there became

associated with Louis Agassiz, Wilder, Stockbridge, Clark, and others who were active in establishing the new college.

Such was the man who followed Henry French. The trustees had obtained a scientist and educator with versatile interests, and a lecturer of international repute. Massachusetts had taken a notable step on the road to establishing a college of which she could be proud.

The election of Chadbourne had cleared the way for progress with the building program and the formulation of a curriculum.[32] Despite discouragement caused by rapidly rising costs, the president moved boldly ahead with a new plan which was approved within six weeks.[33] This called for the immediate construction of "a dormitory club house and laboratory for $46,000, a president's house for $14,000, and a set of barns for $10,000." This plan, however, was altered before construction began in the spring of 1867.

When the feverish activity of construction was over by October four buildings had been erected but there was neither a new barn nor a president's house. In this altered plan the main buildings were placed on Chestnut Ridge, and the eastern side was planned as an area of botanical buildings and gardens. Sitting on the western skyline with its back to the glorious view to the west, was South College, a four-story brick building in an architectural style which might easily be identified from Olmsted's description. This was the era of the textile mill and brick tenements, not of Georgian architecture. In this building were to be found dormitory and class rooms, together with some office, laboratory, and museum space.

Immediately to the north, and where Machmer Hall now stands, was College Hall. This unlovely wooden structure housed the chemistry laboratory and an assembly hall, which doubled for chapel, gymnasium, and drill hall for over fifteen years. On the north side of the ravine was erected the first frame house to serve the purpose of a dining hall. Economy seems to have led the planners into the exercise of poor judgment here, for this building would shortly be inadequate for the purpose.

On the county road to the east, where it still stands as one of

the few remaining original buildings, was erected the Botanic Museum. This building, together with the plant houses soon to be made available through the generosity of Nathan Durfee and the Hills family, became the center of the botanic and horticultural work. Only agriculture, among the three chief scientific fields with which the college started, lacked a building for instruction purposes.

In the meantime another committee had been developing the curriculum. The committee was guided by Justin Morrill's pioneering dictum that a "liberal and practical" education be available to the masses. For forty years the dreamers had been drawing plans for a program which would help to convert the drudging farmer into a progressive citizen. Now was the time for action. "The day has gone for robbing the earth, the hills and valleys of the old Bay State, and then deserting her for the West," wrote Chadbourne. "We think the day is coming when she will understand her own interest, now so much neglected. In that college we shall find the sons of many professional men who have learned the blessings of a farmer's life. . . . If agriculture can be brought to that standard where it ought ever to be found . . . it will certainly equal the learned professions as a field of intellectual enjoyment."[34]

The actual establishment of a curriculum was a drawn-out process in which many popular ideas on the subject were given vociferous expression. As a basis for their work the trustees had several notable documents: Theodore Sedgwick's Seminary Plan, President Hitchcock's curriculum of 1851, and the one more recently recommended in the General Court by the Haven Committee. In addition they had the opportunity for studying colleges in action in Pennsylvania and Michigan.

The curriculum which the trustees adopted and sent along to the legislature in February of 1865 varied little from that which Sedgwick had outlined forty years before. Practical courses in agriculture and horticulture were to rest on the basic natural sciences. English grammar and a modern language were required, while an introduction to the social sciences was planned to fit the farm boy for his professional life.[35]

In the ensuing debate the plan drew criticism from all sides. Traditionalists bemoaned the omission of the classics, while the *Boston Journal of Chemistry* found the curriculum to be "too comprehensive and grand."[36] Apparently the heaviest opposition came from the farmers themselves, who feared that the liberal emphasis would turn their sons away from the farm.[37] To these criticisms French had replied that Massachusetts was aiming to serve the needs of both country and city, while Chadbourne accused the critics of lack of faith in the intellectual powers of the agrarian population.[38]

The curriculum which finally was approved had breadth if not depth. Sciences were plentiful, including geology, physiology, and astronomy as well as those which had traditionally been recommended. Both French and German languages were to be offered, together with introductory courses in the social sciences and "mental science."

But before the College could open, it had not only to obtain a staff but also another president. In June 1866 Chadbourne submitted his resignation because of ill health. Losing no time, the trustees selected another leader. Only one meeting and one ballot were required to elect to the post William Smith Clark, who already had been appointed to the staff as professor of botany and horticulture. Thus Amherst College, which had proffered the use of her laboratories and library, now contributed a colorful professor-president to the new educational venture.[39]

Clark had become deeply interested in the Agricultural College and had already devoted himself to working for its establishment. His qualifications to become its president were solid ones. Like French and Chadbourne, he had been reared in a small New England town and had entered into professional life after graduation from college. From the public schools of Ashfield, Massachusetts, he had prepared for Amherst College at Williston Academy. He developed a strong interest in science at Amherst and after college he continued scientific studies for two years at Göttingen. In 1852 he had returned with his Ph.D. to Amherst where he taught chemistry, zoology and botany.

At Amherst, Clark had also developed a strong interest in public affairs. He was active in the Hampshire Agricultural Society and served a number of terms as its president. In 1859 he was appointed to the State Board of Agriculture, where he joined those other agricultural leaders who were promoting the cause of higher education. Following a two-year period of distinguished service in the Army of the United States, he had returned to Amherst in time to participate in the stirring events in both town and state government which led to the establishment of M.A.C. Selected by Chadbourne to establish the program in botany and horticulture, he suddenly found himself charged as well with the responsibilities of the presidency. Clark turned with his customary vigor to the task of readying the College for its opening in October. Not only did he push the first building program to its conclusion, but also added plans for continuing expansion in preparation for future entering classes. His first reports called for a second dormitory, another dining hall, chapel, gymnasium and drill hall, together with faculty housing, barns, an improved water system, and new equipment for the campus.[40] Another project that he favored, one which he hoped might be accomplished by private financing, was the erection of a seventy-foot observation tower on the highest point of the campus for viewing the inspiring Connecticut Valley scene.

The curriculum had been established and the first appointment to the staff had been made before Chadbourne left. In charge of the farm was Levi Stockbridge, who had already contributed so much in effort to the college. He was neither an educator nor an experimental farmer, but a solid citizen of an old New England village, sensitive of the welfare of his neighbors, regular in church attendance, and unafraid of labor. Recognized as a leader among his peers by his election to both the General Court and the State Board, he was an obvious choice for the tasks of farm superintendent. Instruction in agriculture would be practical. Textbooks were few, and the laboratory was a run-down farm. Required of all students were several hours of field work per week. For this teaching a Ph.D. was not essential. Levi Stockbridge, who confessed to little confidence in the highly educated men who were in

charge, made the open fields his classroom, and overalls and leather boots his academic regalia.[41]

Two other positions were to be filled for the first freshman class, a professorship of humanities and one in mathematics. To fill these, Clark turned to his friends at Amherst. For the first he brought Henry Hill Goodell, to give instruction in rhetoric and modern languages. This young man, son of a missionary to the Near East, had received his education at Williston Academy and Amherst College. After a year of service in the Connecticut Volunteers, he had studied foreign languages and then entered into teaching at Williston. With this educational background and these years of experience, he brought to the new campus a love of teaching and a deep-seated enthusiasm for young people, together with a keen interest in the affairs of the community and the nation. For the second position Clark borrowed Professor E. S. Snell from Amherst College. Snell was another educator whose name was included in the membership of the local agricultural society.

The staff for the first year, four men including the president, was now complete. Dartmouth and Williams men had earlier been present, but the staff was now exclusively an Amherst-oriented group. Although the College was backed by the adherents of the agricultural societies and by the state's leaders, it nevertheless was regarded by most of the farmers with a high degree of mistrust. The test of the experiment in "book learning" was about to start. The victory for public higher education in Massachusetts was still to be won.

3

The Pioneer Class

1867-1871

Announcements went out that Massachusetts Agricultural College would open its doors on October 2, 1867, to boys in all walks of life who could qualify by passing the entrance examinations to be given on October 1. These announcements emphasized that the new college was designed primarily for those who could not afford to attend the private colleges, and its main purpose was to provide an education for farming. Thirty-four students presented themselves on October 1. They were a heterogeneous group, some dressed in faded, home-made clothes and some in broadcloth and fine linens. Two fifths came from within a twenty-mile radius of Amherst, a few appeared whose homes were in the cities and towns of eastern Massachusetts, and two were from outside the state. Three-fourths of those who were admitted in the first year had had some experience upon a farm.[1]

The prospective students reached the campus in a state of subdued excitement. Several had come a long distance, arriving in Amherst at the railroad station. From there they had taken the stage for a two-mile ride to the campus where they were to enter upon a very new experience. Dreams of college life had filled their

heads since interest in the new college had first been aroused. Their first impressions of the campus as they tumbled from the stage hardly measured up to these preconceptions. Weather-beaten farm buildings stood beside new and unfinished college halls. On every side appeared evidence of decadent agriculture: orchards with broken apple trees, dilapidated rail fences, acres of land mostly overgrown with weeds and brush. Empty mortar beds and piles of unused bricks testified to the last-minute haste in preparation for the arrival of the first students.

The scene that greeted their eyes did little to dispel the rising discomfort of the first stages of home-sickness, and perhaps many shared the emotions of the freshman who wrote on his arrival at his new dormitory home, "This stately pile of bricks reminded me moore [sic] than anything else of a prison, and when I landed in front of it I thought surely I had got to what people call the jumping off place."[2]

Disappointment and loneliness were compounded with anxiety when the hour of examination arrived in mid-afternoon. For many, late decisions to apply had precluded the possibility of review, and to some the sight of a printed examination was a novelty. The examination, which lasted over three hours, covered English grammar, geography, arithmetic, and algebra to quadratic equations.[3] Problems in mathematics called for answers to such questions as:

> Seven men laid a piece of wall 65 feet long in 12 days. Again 11 men laid the same kind of wall in 10 days. How long was it?

Geography questions reached for the names of the "highest hills and biggest brooks in the United States and the world."

The end of the examination brought a measure of relief, but the lack of diversion left time for continued anxiety as the class returned to its unfurnished dormitory rooms for the night. How needless this concern had been was realized on the following morning when President Clark announced that all would be accepted. Although some had qualified with conditions, it was the recollection of one member, years later, that none had ever been required to

make these up.[4] This first class, which numbered thirty-six on the opening day, was increased to fifty-six by late arrivals.

The course of education on which these boys were about to embark, although designed to train young men for a new objective, nevertheless was based upon subjects familiar in all colleges. The intent had been, said President Henry French when he had outlined the first course of study, to combine in one curriculum the mental, physical, esthetic, and moral disciplines which were basic in the curricula of most colleges with the practical application of the arts and sciences to the business of agriculture. Uniqueness also was present in the provisions for the analysis of everyday problems in rural living, in the requirement of manual labor and military training, and in the elimination of classical studies.[5]

The freshman in the Pioneer Class found his class-day divided into a morning of three lectures and recitations, and an afternoon of labor in the fields. Saturday afternoons were reserved for recreation and scientific excursions, Sundays for required attendance at church or a Bible class.[6] For his algebra and geometry he attended the classes of Ebenezer Snell, who has been described by William H. Bowker, a member of the Pioneer Class, as "that dear little, dried-up, sparkling professor . . . who taught mathematics so thoroughly and in such an interesting way that he influenced some of the brilliant men to take up higher mathematics and eventually to become distinguished engineers."[7] One term of botany was presented by the president in the cramped classroom in the Botanic Museum. Clark was young and vigorous, a forceful speaker, and a brilliant teacher as well as a dynamic administrator. To his teaching he brought an intense interest and the intellectual curiosity that was required for the purpose of stimulating the student to more scientific cultivation.

The third man whom the freshmen met in the classroom was Goodell, the general utility man of the faculty. With him, new students wrestled with the construction of French grammar and were drilled in its vocabulary. Outside of the halls they followed him in the exercises of gymnastics and military drill, and submitted, with watchful eye, to his guidance as the monitor of their

dormitory. "He was an excellent disciplinarian, a splendid teacher, and a man looking for the good in everybody," wrote Bowker.[8]

To many a farmer's son the first lessons in agriculture at the new college must have appeared to be unnecessarily laborious and elementary ones. The clearing of broken-down orchards, cutting of brush, and endless digging of drainage ditches occupied more of their time than went into the harvesting of crops that autumn. And need of the farm teams for hauling building materials often interrupted scheduled farming operations. But the unflagging zeal of Levi Stockbridge, the farm superintendent, and later first professor of agriculture, did much to convince the boys that manual labor was a requisite of collegiate agriculture. Bowker recalled him as a tall, thin, and wiry farmer of thirty-seven, "who could work all day without food and still keep fresh. . . . While Clark was the aggressive leader and undoubtedly the hero of the boys of my time, Stockbridge was the shrewd, level-headed man of the faculty, the balance-wheel, the 'father confessor' who had unbounded faith in the college."[9]

For the duration of his four years, the "Aggie" student followed a curriculum which included the fundamentals in the fields of mathematics and civil engineering, chemistry, botany and zoology, English grammar, rhetoric and literature. Some breadth was added to his education by requiring him to study the French and German languages (twenty weeks of study for each), and by giving him introductions to history, government, economics, logic, and philosophy. No specialization was found here. The brief time devoted to each subject made depth coverage impossible, and the many demands made upon professors such as Goodell deprived them of the opportunity for deepening their capabilities in any specialty.

By the time that the first class had become seniors, the college staff had grown to ten. Faculty leadership was found in the "Big Four," as one of the trustees later labeled them — Clark, Stockbridge, Goodell, and Charles A. Goessmann, professor of chemistry, who had joined the staff in 1869. Other professors who were called to the college included Major Henry E. Alvord, professor of military science; Henry W. Parker, professor of mental, moral,

and social science, and Samuel F. Miller, who taught mathematics and civil engineering.

Charles Goessmann was probably the best-trained and most widely known man of the first faculty. A German, he had received his training at the University of Göttingen, where he taught analytical and organic chemistry for several years after taking his degree.[10] After emigrating to the United States, he had won national recognition as a brilliant research chemist through his published work on saline and salt deposits, completed during his six years as superintendent of the Onondaga Salt Company in New York. On the campus of the Massachusetts Agricultural College he continued to carry on important research but also made a profound impression upon the minds of the young students in his classroom. "He was familiarly known as 'Dutchy,' " wrote Bowker, "but in our true estimate he was Goessmann the chemist, the investigator, the philosopher, the courteous and cultivated gentleman whom we loved."[11]

The education offered at the College was limited in its scope to the talents of a small faculty. It was further hampered by primitive laboratory facilities and the complete absence of a college library. But ingenuity of both faculty and student went far in making up these deficiencies. Formal courses of instruction were enriched by lecture series, some of which extended into several weeks' duration. In the final year of the Pioneer Class, President Clark brought to the campus some fifteen experts who presented instruction in anatomy, beekeeping, various phases of horticulture, public affairs, and the like. For his convenience in reading, the undergraduate of the class of 1871 accumulated his own library, showing more interest in doing so than did most of his successors of ninety years later. Many a dormitory room had its wall embellished by well-stocked bookshelves.

Examinations were class affairs and conducted orally and publicly. The faculty and the president examined each member of each class before a three-man committee of the Board of Overseers, usually including Harvard's famous scientist Louis Agassiz, and another committee made up of trustees of the college. That these

undergraduates were unabashed by the public nature of their testing, or by the occasional question which was leveled at them by a visiting dignitary, seems to be attested by a vote of eighteen to one in favor of the affirmative side of a debate on the question, "Are examinations correct tests of a student's scholarship?"[12]

Instruction in the physical development of man occupied an important place in the first curriculum. Lectures on human anatomy, physiology, and hygiene were included in the curriculum. Military drill and the requirement of six hours per week of labor on the farm were defended by President Clark for their double value as training and as physical culture.[13] But the military program became something more than simple marching in 1869 when Major Henry E. Alvord, an officer in the United States Army, was assigned to the campus by the War Department. Major Alvord, the first officer ever detailed to give instruction in an agricultural college, taught not only regulation drill but also infantry skirmishing and the use of the sabre, bayonet, small arms, and artillery as well. Soon a battalion of infantry was organized, led by student officers. The battalion review became a prominent feature of campus celebrations such as those held on the Fourth of July and at Commencement.[14]

A conscious effort was made to mold the student character according to the classical American model: sober, hard-working, God-fearing. Daily morning devotions were followed by Sunday morning church services and an afternoon Bible class. Prior to the appointment of Henry W. Parker, the first resident chaplain, the student body had been marched the one and one half miles from their own campus to College Hall of Amherst College, there to listen to the sermons of Amherst's President L. Clark Seelye. With the appointment of Henry Parker, the Agricultural College had on its own staff a trained clergyman who took up the responsibilities for spiritual guidance of the students. Professor Samuel Miller, who had succeeded Snell in the chair of mathematics, also took an interest in student religious activities and encouraged a group to organize the college Christian Union.[15] Meetings of this organization, on Saturday nights, included Bible readings, hymn-singing,

and debates. "Is College life detrimental to the cultivation of a Christian character?" and "Does the Bible sanction polygamy?" were questions which appeared to offer possibilities for lively debate.

The first students at M.A.C. were not unlike those on the campuses of older colleges in the patterns of their daily living and personal deportment. Their dormitory accommodations in South, and, after 1868, in North College too, were simple but spacious. For fifteen dollars per year a student was able to share with another a suite which included two bedrooms and a common study, unfurnished except for a stove. Then, as now, the dormitory was the scene of a contest between the more serious-minded, who yearned for the tranquility necessary for study and for sleep, and an opposite group. A very early student, engaged in reminiscence years later, recounted details

> of that first term of our course, when we were so quiet and enjoyed such sweet repose, unbroken save by the independent whirl of a four pound June bug, as it came in close proximity of one's face, or the musical buzz of a long-billed mosquito, or the falling downstairs of a stove, or the yelling of ten or a dozen stout youths, mingled with the splashing of water and slamming of coal-hods, slightly reminding one of the infernal regions, while ever and anon, rising high above the accumulated disturbance, would we hear the clear tenor of a tin horn.[16]

Meals were provided in a dining hall standing on the area which today is lawn in front of Stockbridge Hall. The board, which cost the student $3.50 per week, was then, as almost always on college campuses, the object of derision and complaint. But the Board of Overseers, refusing to become over-alarmed in 1870, felt that "as long as the energetic president of the college has any old apple trees to be cut down, there will not be much complaint from the young men about their food, if it is abundant and of good quality."[17]

Student conduct, though described by President Clark in his public reports as being model, nevertheless had its qualities of rest-

lessness and crudity. Everyday boisterousness and the practice of playing "bound ball" by tossing rocks against the sides of buildings resulted in serious destruction of window panes. Vigorous hazing of underclassmen sometimes led to pitched battles between entire classes. Classrooms frequently became littered with apple cores, tomatoes, and chestnut burrs, while the stain of tobacco juice was noticeable around a few of the chairs. Conscientious students were made to feel uncomfortable under the jibes of their gayer classmates, while visiting lecturers and unpopular instructors often were subjected to verbal harassment. That restlessness also extended to Sunday service is evident from the comment of one student, who wrote in 1870,

> . . . the most marked cases of the ungentlemenly conduct are exhibited in the chapel on the Sabbath. The disturbance then is almost unbearable. Those who would otherwise appreciate and enjoy the fine sermon which our professor gives us, are prevented from doing so by the noise.[18]

On the whole, however, student deportment seems not to have caused the faculty serious concern, and most unrest was apparently confined to the campus. Although taunts were freely exchanged between the "Aggies" and the Amherst students, "the bucolics" and "the intellects," more serious friction was somehow avoided.

On two occasions, the Pioneer Class did perturb President Clark and his faculty. Twice, the student body went on strike — once when the class refused to march to the Amherst College chapel on a morning when the thermometer stood one hundred degrees in the shade, and again in the spring of 1870 when a mass protest was made against the requirement of manual labor. In the latter instance, the President met with the stubborn resistance of a class led by William H. Bowker and William Wheeler, both of whom years later became trustees of the college. Clark had heatedly confronted the protesting class with the choice of suffering expulsion or signing a document of recantation and promise of obedience to authority. Bowker described the chapel scene vividly, writing that the president, "producing the wherewithals for its immediate signature, to wit, a pocket inkstand and pen, marched out of the room

with the air of command of which he was so capable, and which we are agreed generally so well and worthily became him."[19] The class persisted in its refusal to sign the despised recantation and was unyielding before the urging of distraught parents. But the day was saved through the diplomatic and friendly offices of Professors Stockbridge and Goessmann and farm superintendent Dillon. Students agreed to return to classes when given assurances that manual labor would be limited to "educational lines." Soon after this compromise the announcement was made that farm work would be abolished for the senior year.

Massachusetts students displayed at an early date a strong proclivity for organizing; the Pioneer Class inaugurated student associations for a variety of purposes. The first of these was the short-lived Phoenicia Literary Society. It was never a cohesive group and was weakened by the secession of a faction which formed its own more durable association, the Washington Irving Literary Society, in December of 1867. After two years of fighting a losing battle, the Phoenicia Society disbanded. Its place was taken in September 1870 by a new group organized primarily by sophomores and known as the Platonian Debating Club, or Pi Delta Kappa. But the Greek-letter name proved to be offensive to students who wanted to preserve individuality and not assume the characteristics of neighboring schools; within a short time, therefore, the new society became known as the Edward Everett Literary Society. For a few years the two societies continued separate existence, though they merged their libraries in 1872 in the Social Union of Literary Societies. Deciding in 1876 that there were insufficient students to continue both, these societies merged under the Washington Irving name.

Through debating and literary societies, some of the students pursued the arts which were touched upon but briefly in their curriculum. They presented declamations, debates, and papers at weekly meetings. By their libraries, which contained many volumes of poetry, essays, history, and fiction, though little of a scientific or vocational nature, the societies helped to make up for the library which the college lacked. Creative writing also was encouraged, and

the Washington Irving Society attempted the first journal. Although the *Irving Gazette* was never published, its manuscript volumes bear evidence of student interest in reading essays and scientific articles, and they include some undergraduate literary efforts as well as valued records of campus events.

Actual publications by the students were few. The Pioneer Class initiated *The Index*, a yearbook which has had continuous existence from that time. This register of class and society membership also contained brief summaries of campus events, bits of student gossip, and other campus chatter. No student newspaper found its way into print on campus before the year 1890, but for a time the first class had supplied the local weekly, the *Amherst Record*, with a chatty campus column. However, interest in this enterprise was short-lived and with the graduation of the first class, the column disappeared altogther.

Very early, organizations primarily social in purpose had appeared, but seemed to lack the prestige achieved by the literary societies. By 1871, there were six eating clubs. And one secret society — the D.G.K. fraternity — had been organized by seven sophomores. Striving to preserve the non-classical orientation of the college, the students started the fraternity as a German society.[20] Within a short time another group had established a second secret society, Q.T.V. These fraternities were to become fixtures, outliving the literary societies, which by 1900 had lost their status.

Athletics were first introduced to the campus in the spring of 1868 when the Wilder Baseball Association was formed.[21] There was no great enthusiasm for the game in the early days, and at times barely enough players turned out to fill all positions. Students managed team affairs and performed what coaching was done. They wore no uniforms before 1875, and equipment was simple, consisting only of a kid glove for the catcher. Schedules were brief and often arranged on very short notice. The M.A.C. team played games at home with the Amherst High School and Amherst College teams and occasionally travelled out of town to meet those of Williston Academy or the Springfield Boat Club. Baseball games in themselves attracted few spectators and more often were played as

a part of the festivities of local agricultural fairs. The high scores recorded in some — Amherst College 57, the Wilder Nine 38 — suggest that the playing then may have lacked the display of skill which came to make baseball one of the most popular of college sports.[22]

Crew racing, which had become a popular intercollegiate sport after the first meeting between Harvard and Yale in 1852, attracted the attention of M.A.C. at an early date. Inspired by the example of the students of Amherst College who had entered a crew in the intercollegiate regatta on Lake Quinsigamond in 1870, M.A.C. decided to try the sport and brought together what they called the "Boating Organization and College Navy." Having purchased a heavy shell from the Springfield Boat Club, they undertook a four-week period of training. Saturday practice was held on the Connecticut River, to which the crew walked three miles. This exercise, increased at times by running an extra mile or so, was considered to be fine for conditioning of muscles and breathing.[23] By November, the M.A.C. crew was ready for competition and defeated Amherst College in its first formal race.

Encouraged by this first victory, the college joined the Rowing Association of American Colleges, which was organized in 1871, and decided to enter a boat in the regatta which would be held that summer at Ingleside on the Connecticut River above Springfield. The other members of the Association were Amherst, Bowdoin, Brown, and Harvard. The college crew began training at once, practicing on rowing weights in the gym until the weather permitted the use of the river. This was to be no casual undertaking. A better shell was purchased from Amherst College, and Josh Ward, oldest of five brothers famous for their rowing prowess, was hired as coach.

Excitement mounted to fever pitch on the campus as the day for the July regatta came closer and closer. For the moment, thoughts of the coming Commencement and other activities were overshadowed by concern for the newest sporting event. Ten days before the meet the "navy" had left the campus to take up training quarters in the Ingleside Hotel on the banks of the Connecticut

River. The crews of Harvard and Brown were there too, and everything was being readied for the grand event. Only ardent M.A.C. supporters expected a victorious performance by the unheralded crew representing the new college.

The hard-pulling "Aggie" oarsmen not only defeated their better known rivals but, what was more, set a new time record for the three-mile course in the process. A joyous celebration was started when exuberant President Clark splashed into the river to greet the victorious crew. Back on the campus in Amherst a few hours later the students set up a roar as they received the news from the President himself, who had driven his spirited team of horses, covered with froth, at full speed to bear the tidings.

Organizations devoted to music also played an important part in the life of the campus. In 1869 the students formed a small glee club and a College Choir with about a dozen members. By the following year, the glee club was firmly established, and a college orchestra of nine emerged. The musical organizations, largely student-directed, not only provided entertainment during interludes at special events, such as evenings of public speaking, Fourth of July celebrations, or Commencement, but also performed concerts of their own which were well attended and well received. Continuing interest in singing brought forth serious efforts to improve the quality of performance. By its third year the glee club was able to obtain a coach, and on one occasion, at least, the versatile president of the college served as accompanist for a concert by the orchestra and glee club.

College life for the most part was bound in routine, but the students were alert to grasp opportunities for festive celebration. Their class day began with a rising bell at 6:30 and continued in an almost unbroken succession of classes, drill, and manual labor until the 5:30 bell for supper. But come a holiday such as July 4, or important news, such as a national election or the passage by the Massachusetts General Court of a measure especially favorable to the College, and the student body turned out for a celebration. A march to the house of President Clark, or to that of a favorite professor, preceded calls for a speech and for light refreshments

befitting the occasion. No major affair was allowed to pass without the discharging of the college cannon and the burning of a mammoth bonfire. Especially enthusiastic demonstrations might extend into the early morning hours.

Commencements became the occasions for sober examination as well as for gala celebration. A special effort was put into making the first commencement, in 1871, a memorable one. Gathered for this historic ceremony were most of the state and national officials who had been associated with the movement for agricultural education. Governor William Claflin and the members of his council, the State Board of Agriculture and the Board of Trustees were here in official capacity. Included also were Senator Justin Morrill, Paul A. Chadbourne, the second president of the college, Professor Louis Agassiz, scientist of international reputation who had developed a keen interest in M.A.C., Dr. George B. Loring, and Marshall P. Wilder. This was a true gathering of notables, and the townspeople of Amherst gave fitting recognition to the occasion both by brilliant lighting of the streets and also by their attendance at the functions.[24]

For two days the classes underwent their final examinations, conducted orally and in the presence of the Overseers and Trustees. Prize declamation contests by the three lower classes and Senior Class Day exercises gave the opportunity for the display of oratorical talents. The evening of the second day featured an address by Dr. Loring, a reception given by Governor Claflin, an informal speech by Justin Morrill, and a torchlight parade of the cadet battalion, followed with a gigantic display of fireworks. An artillery salute at midnight signaled the close of the second day's festivities.

Graduation Day itself, July 19, 1871, was one long to be remembered by the twenty-seven members of the group that had approached college education with hope, awe and much trepidation. The day began with the final review of the military unit by Governor Claflin. Subsequently fifteen selected students delivered original orations to the assembly of guests in College Hall of Amherst College, the last being the class valedictory address. Governor Claflin, after speaking to the class on the

values of higher education, conferred upon the graduates the degree of Bachelor of Science. Trustee Marshall P. Wilder closed the official exercises with a lengthy summary of the history of the college. That evening at the parting supper of the Senior Class the final rituals of departing students were performed, including the presentation of a fund to establish the "Pioneer Scholarship of 1871."

The Pioneer Class was a typical group of students. They tended to be more radical than their average fellow-Americans; they read the writings of free-thinking Charles Bradlaugh and those of the violent agnostic, Robert Ingersoll, as well as the novels of that "woman of sin," George Eliot. They would walk miles to hear the magnificant orations of the reformers Wendell Phillips and Henry Ward Beecher.[25] They smoked pipes, chewed tobacco, imbibed, and grew mustaches, beards, and "burnsides." Their deportment was sometimes outrageous; they had defied the college authorities with strikes, and had won. To their professors they seemed to be poorly prepared and inadequately motivated for scholarly endeavors. They cut classes, but took time to engage in thirteen different recognized extracurricular activities and organizations.

These students entered the world outside of the college and generally proved that their four years there had not been wasted. They were a versatile and mobile group in keeping with the rapidly changing, quickly moving American society into which they set foot. Few settled in one area or in a single occupation for the rest of their lives. They farmed a bit, taught a bit, sought more education, surveyed and acted as engineers, and entered into the business world.

A survey made twenty-five years after their graduation revealed a record of distinctive accomplishments. Of the three who became full-time farmers, one had established what was known as a model farm before his early death, and another was an important official in his county agricultural society and had been voted into several elective offices in his rural community. Six of the graduates were engineers, one of them the City Engineer of Holyoke, another a justice of the peace and Trial Justice for Worcester County as well

as engineer. Two of the class of '71 received degrees in law and practiced in that field, another became a justice of the peace in Florida, and one went from business and farming into being postmaster of Monson. Ten were engaged in various activities in the business world, ranging from real estate and insurance to sales and manufacturing. Of these, three became either important corporation officials or owners of their own firms. One of them, William Henry Bowker, was president of his own fertilizer company, prominent official in several other institutions, and a trustee of the Massachusetts Agricultural College. One member of the Pioneer Class became the master of his own school, and another, William Wheeler, rose from engineer to professor of mathematics and civil engineering at the Imperial College of Agriculture, Sapporo, Japan, and later to president of that institution. Returning to this country in 1880, he established the Wheeler Reflector Company and served as director or trustee in a number of institutions including the Agricultural College.[26]

The graduates did not leave college without taking with them a full appreciation of the inherent values of agricultural education. Several of them continued to write, often articles of an agricultural nature which were published as pamphlets by agricultural societies or printed in agricultural journals, but also articles of more general interest. A strong sense of public service also pervaded this group. There were school committee members, state legislators, and community leaders of every kind. The majority of the graduates of that Pioneer Class became useful, intelligent, mature, and cultivated citizens of the Commonwealth and nation. Through them, the Agricultural College proved itself an institution of higher learning, promoting the liberal as well as the practical education of the industrial classes.

4

Struggle for Existence

1871-1884

"Let it be remembered that the College has been established to continue forever, that the good name of Massachusetts is inseparably united with it, and that its reputation ought to be as dear and sacred to every citizen of the state as that of his most intimate friend." So spoke the dedicated President William S. Clark, in an effort in 1873 to stem a tide of misfortune and opposition to the institution which had set in soon after the first commencement.[1]

The College's troubles were manifold. Educators, unreconciled to the new doctrines of applied science, accused it of having low standards. Farmers, still unconvinced that study was the best road to successful farm management, continued to denounce the College as "too bookish" and pointed to graduates who found their life's occupations in fields other than agriculture as evidence of misdirected energy and funds. And the legislators, expecting the College to be self-supporting, became severely critical of its officers who failed to balance their meager budget in this decade of critical nationwide depression.

The vital question in Massachusetts, as it was in most other states, was whether or not the state was willing to provide a portion

of the operating income. When the legislature had voted in 1863 to establish an agricultural college, it had established an independent corporation which was expected to maintain its normal operations with revenues from the land-grant fund, student tuition fees, and the produce from the college farm. Whether or not this might have been done successfully in normal times is not clear, but it was not feasible in the depressed conditions of the 1870's. Land-grant college presidents everywhere were confronted with this fact, and Erastus Haven, author of the 1863 report which had guided the Massachusetts legislature, and now the president of the University of Michigan, changed his stand and successfully led the movement in Michigan to establish an annual appropriation for its university. At the same time, however, William S. Clark was waging a losing battle to change the policy of Massachusetts.

The legislature of Massachusetts had approached the issue of support for the College reluctantly and with great caution. Indeed, its first two appropriations of $10,000 each had been labeled "loans", to be repaid by the College out of future revenue; and it was not until several months after the first students had started their classes that a sizeable grant was made for the erection of the buildings needed for a four-year college. This appropriation was for $50,000 in 1868; another $50,000 was added in 1869 to complete the buildings and supply furniture. However, the struggle to commit the state to adequate support had not yet been won, for in 1870 a resolution had reached the legislature which proposed to cut off the College from the state treasury and to reduce it to a trade school with a two-or three-year program.

In the spring of 1871, while the Pioneer Class was preparing for its graduation, the state legislature debated the policy of supporting agricultural education. Governor William Claflin defended the College against the attempt to reduce it to a trade school but was unwilling to commit the state to regular support for it. He recommended, therefore, that financial aid be supplied by the Commonwealth, adequate to equip a college for three hundred students; then, he felt, it would be safe to cut off further support.[2] In the legislative debate that ensued, a special commission headed

by Joseph White, secretary of the State Board of Education, and including Charles Flint, secretary of the Board of Agriculture, submitted a report which was regarded as friendly to the interests of the College. It pointed to the fact that revenue from the land-grant fund had dropped below the level of five percent of the principal which the state was obligated by the Morrill Act to maintain. The commission therefore recommended an addition to the endowment to increase the permanent income.[3] But neither the governor nor the commission was ready to meet the requests of President Clark and the M.A.C. trustees for an appropriation which would discharge the accumulated debt, and for annual grants to prevent recurring deficits.

The outcome of the debate was neither a victory nor a complete defeat for the Agricultural College. The legislature appropriated another $50,000 to complete buildings under construction and to discharge the College debt. The legal obligation of Massachusetts to maintain the land-grant revenue was met by adding capital funds to raise the endowment to $350,000.[4] But this was the full measure of state support accorded, and to underscore the idea that the College was to be financially self-supporting, ("independent," as the legislators thought of it), the legislature surrendered its power of filling vacancies on the Board of Trustees to that body itself. Let President Clark live within this income or give accounting to the Board of Trustees, whose responsibility was clear.

The new era of unsolicited fiscal independence was not to be a happy one for the College. Its needs for a library and laboratory equipment, as well as for added classrooms, were great and could not be satisfied from current revenues. Indeed, these revenues were dropping off sharply. Enrollment had dwindled by 1875 to the point that fewer than twenty students were received in the entering class. In addition, by 1877 the income from the endowment fund had shrunk again. The College was going into debt again by some $5,000 to $8,000 each year.

For the remainder of the decade the affairs of the College hung in precarious balance, while the public's interest cooled. President Clark, facing increasing charges of incompetence because of re-

curring deficits, stubbornly repeated his charge that Massachusetts had a sacred trust to maintain a public college. Opposition to the College, he claimed, throughout the 1870's had its main sources in ignorance and indifference. He was heard at the Great Barrington Fair in 1870 bemoaning the fact that no student from Berkshire County had entered the College in that year, and denouncing what he felt to be the utter indifference toward their college on the part of the state's 75,000 farmers.[5] "They ought to rejoice in the fact that they have a college for the education of their sons, and they ought to bestow its advantages also upon their daughters." On numerous other occasions he rather inconsistently blamed the declining enrollment upon the farmers' depression-caused inability to pay the $1,000 needed for a four-year course. Tuition scholarships were his answer to this need. "We need an annual income of $50,000 and additional buildings and apparatus costing $200,000. This would furnish accommodations for 200 students and enable the corporation to give free tuition to all who might need it."[6] Free tuition! Education for women! A quarter of a million dollars! Will professors ever comprehend the practical side of education? — so thought his critics.

The position of the college continued to disintegrate as the depression deepened and as the legislature stood adamant in its refusal to grant annual financial support. The county agricultural societies discontinued the scholarships which they had initiated at the beginning of the decade; student enrollment fell to half its former size, and tuition revenues shrank some $5,000, while income from the land-grant fund was reduced by twenty percent. Although the legislature was induced to discharge the standing debt with an appropriation of $18,000 in 1874, it nevertheless made no move to prevent further debts. For three years, from 1874 to 1877, the College sustained its credit only by personal endorsement of its notes by Trustee William Knowlton.

New fuel was added to the flames of criticism in 1875 when the College dropped the professorship of veterinary science as an economy move. The admission that this instruction might not be necessary strengthened the outcry of one group against "book farm-

ing" and "frill education," and drew the charge of "weakening of instruction" from another. The news of a student revolt against the requirement of manual labor was also seized upon as evidence of softening of college discipline.

For several years the affairs of the College continued in desperate straits. While criticism mounted, the College authorities loudly insisted that public higher education was a vital need of the Commonwealth and that it could be sustained only through public provision for free tuition.[7] During 1876 and 1877, when President Clark was on leave of absence for the purpose of establishing an agricultural college for the Imperial Government of Japan, Secretary Charles L. Flint resolutely defended the position of the College. Further economy would cripple the institution, he stated. Faculty salaries were beneath those paid teachers in the schools of the larger cities of the state, and tuition increases would only defeat the purposes of public education by making admission discriminatory.[8] But when the trustees proposed that two hundred scholarships be established with fees that the state received from the licensing of dogs, the only response of the legislature was a small appropriation for paying student labor on the farm.

Clark returned to Amherst in late 1877 determined to break the impasse. The meager sum of $5,000 annually requested by the Massachusetts college, and regularly denied by the legislature, stood in pitiful contrast to the $40,000 which the Japanese government had made available for managing the experimental farm near Hokodate, and the $30,000 for the college at Sapporo. This "enthusiastic and enterprising spirit of the 'Yankees of the East' " had excited him.[9] The president now determined to use bold action to demonstrate that the basic cause for the decline of college enrollment lay in the high cost to the student. He would grant free tuition despite the legislature. Accordingly it was announced that each Massachusetts congressman would distribute a free-tuition scholarship for four years, and in addition that each of the one hundred and fifty alumni of the college would be given the same privilege. When college opened that fall, eighty-eight freshmen presented themselves, in contrast to the twenty-three admitted in

the preceding year. The president had made a point, but had not won his battle.

The fate of the College hung in delicate balance in 1879. Free tuition could not be continued in the face of a mounting debt, and the scholarship plan had to be abandoned. The incoming class was but a handful. Opposition to the methods of the College administration was increasing in intensity on all sides. Governor Alexander Rice, who urged in his annual message the causes of the common schools and of industrial education, together with support for the Massachusetts Institute of Technology, found no room to mention the needs of Massachusetts agriculture or of the College. Criticism spread to the press, while opposition developed among the alumni, and eventually within the Board of Trustees. Late in 1878 a few of the alumni had inaugurated a move to investigate the affairs of the College. Their report, which was published in January, 1879, rehearsed the charges of inefficient management, excessive expense accounts of trustees, poor food in the dining hall, and laxity of college discipline.[10] The release of this report brought to a peak criticism that was being expressed by most of the newspapers of Massachusetts. "Negligent and unintelligent" was the description applied to the College administration by the *Springfield Republican,*[11] while the *Boston Post* used such epithets as the "Amherst elephant," "this hungry buzzard," and "the water-logged and beggarly institution."[12] The *Boston Globe* hinted at the desirability of abolishing the College, and the *Springfield Republican* urged its conversion into a trade school under the control of the State Board of Education.

Meanwhile, events were moving swiftly to a climax within the College administration. Administrative policies had divided the trustees and caused grave mistrust among the faculty.[13] When Clark asked the trustees in October for another leave of absence, this time for sixteen months to enable him to take charge of an experimental venture, a "floating college," the board denied his request. The president responded by submitting his resignation, which was accepted by the board at its January meeting. The incident to catalyze action had occurred.

In the spring of 1879 the public pyrotechnics were spectacular, but behind the exploding facade cooler heads were seeking out ways to rescue the agricultural college. The retiring president resolved to carry his cause to the legislature and to the public. In his annual report for 1878, issued in January, 1879, he threw down the gauntlet to the state government. "Certainly the wealthiest state in the Union cannot plead inability as an excuse for violating a plain contract," he proclaimed. It must pay off the $32,000 debt and make reasonable provision for the future needs of the College. "But if the General Court shall decide that the College is better than Massachusetts can afford . . . then a new institution upon an inferior plan should be organized," he testily added.[14] Later in January he addressed the public through a long letter in the *Springfield Republican* which concentrated upon the alumni report.[15] He acidly charged that this did not represent the consensus of the alumni but was the work of two very officious committee members, one of whom still owed $250 on his term bill. He categorically denied rumors of ruined credit, loans extracted from professors to pay college bills, and mismanagement of the dining hall. Recommendations which had been advanced for reduction of salaries and improved discipline were dismissed by Clark as nonsensical and impractical. (The alumni believed that better discipline might help to reduce the cost of replacing broken window glass.)

Meanwhile, members of the legislature also displayed fits of temper. Outbursts of denunciation such as "abuse of confidence," "breach of law," "violation of pledges," and "annual begging" were frequently heard in its sessions. At length an investigation was called for, to be conducted by Governor Thomas Talbot and his Council rather than by a joint committee of legislators, as the trustees had suggested. The governor was quick to seize this opportunity and called for a meeting in Amherst of his Council with the trustees of the College. Here, his lieutenant governor, John D. Long, impetuously blurted out the thought, "Well, give it to Amherst," meaning, "Give the Agricultural College to Amherst College."[16] His thought was shared by other officials, too, though no formal suggestion to this effect came out of the meeting.

A temporary solution of the Agricultural College's problem was finally found within the legislative halls in Boston and in meetings of the trustees. The General Court agreed to discharge the debt but rigidly limited the college budget to its current revenues, adding the ominous provision that the trustees were to be held liable personally for any deficits. The act further called upon the governor and Council to point the way to the final separation of college financing from the treasury of the Commonwealth.[17]

The trustees accepted this mandate without enthusiasm but with determination. The budget was slashed by eliminating the president's salary and sharply reducing that of the farm superintendent. Charles L. Flint, secretary of the Board of Trustees, was elected to serve as president without salary, but everyone knew that the administrative burden would rest primarily upon the shoulders of Levi Stockbridge. At the end of one indecisive year the situation continued to be cloudy. Charles Flint was discouraged and he resigned, and Levi Stockbridge also had placed his resignation in Trustee hands. The budget was balanced, but the College threatened to waste away on such slim fare. Governor Talbot repeated the executive advice, "Give it to Amherst."

But the tide turned for the College in the spring of 1880. In March Levi Stockbridge was persuaded not only to withdraw his resignation but also to accept the president's chair. A determined effort was mounted not only to preserve the College, but to win for it the public support necessary to its success. In February the Alumni Association published a persuasive report arguing for the retention of an independent college of agriculture.[18] In March a hearing in Boston on the governor's proposal for closing the college brought out many friends of the College but only one defender of the governor, and the Board of Agriculture gave a favorable report upon a request to establish at the College a new experiment station.[19] Once more the town of Amherst asserted its influence in defense of its college by calling a special town meeting which was addressed by the presidents of both colleges. From this meeting came a petition, apparently drafted by Levi Stockbridge, which was sent to the legislature to protest the proposed union of the

Agricultural College with Amherst.[20] Quietly the governor's proposal was dropped.

Summer saw repairs being made on campus buildings, concrete walks laid across spacious lawns, and the water system connected with the water supply of the town, albeit at the cost of continuing niggardly salaries.[21] Eventually, this air of finality reached Boston. In January of 1881, John Long, now governor, recommended that the college, " at present a school rather than a university . . . doing all that it can with its small income . . . is, under the policy to which the Commonwealth seems now committed, fairly entitled . . . to the consideration of the Commonwealth, and to its help whenever it undertakes any special work that will promote its agriculture."[22]

A major factor in favor of the College had been the successful experimental work which was conducted throughout the 1870's by Goessmann, Stockbridge and Clark. One of the main proposals being weighed in the fateful year of 1879 was that of establishing a formal experimental station to continue the research in the agricultural sciences. As early as 1870, Professor Goessmann had received considerable recognition through his research upon sugar beets and his strong efforts to establish a sugar industry in Massachusetts. Other studies which he had conducted, of salt marshes and fertilizers, were regarded as significant scientific contributions and also as being of practical value to Massachusetts industry. Levi Stockbridge, meanwhile, had concentrated his attention upon the improvement of crop production, and he had gained considerable fame and a modest income through the development of certain formulas for mixing of fertilizers. By 1873 he had publicly acknowledged experimentation in the raising of tobacco, a crop which was destined to be of major importance to the farmers of the Connecticut Valley, although most of Stockbridge's colleagues seem to have regarded it as a "contraband crop."[23] President Clark had made important studies in the circulation of sap in the sugar maple, the results of which proved to be of more practical value in New England than the work of sugar beets. Another experiment which attracted much attention was that of harnessing a giant

squash whose force of growth produced the power to lift a weight of 5,000 pounds.[24]

The effort to put experimental research in Massachusetts on an organized basis had been initiated when President Clark had pointed to the need in his report for 1872. Stations such as he contemplated had existed in Europe for over twenty years, he said, and normally received as much as $4,500 yearly in public funds. The movement had also become established in the United States, and Pennsylvania had three such stations. Massachusetts might take her place as one of the leading states in this work for the very modest sum of $1,000 per year. Although the Board of Agriculture lent its support to Clark's plea, no action was forthcoming.

The practical value of this scientific experimentation, however, did have a good deal more appeal to opponents of agricultural education than did course instruction. Still, it would take time to win decisive support. In 1876 George Boutwell, a former governor of Massachusetts, who had for some ten years been an outspoken opponent of a public-supported agricultural college, proposed the expansion of the staff by three or four positions in order to extend its experimental work and enable it to distribute advice from the campus to the farm.[25] In 1878 Levi Stockbridge donated $1,000 to an experiment fund from the proceeds of his fertilizer patents, the "Stockbridge Manures." The trustees created an administrative committee of the faculty to carry on organized research, but this activity had to be suspended after the year for want of further funds.[26] Thus it was that Governor Long's somewhat casual reference in 1882 to the deserving needs of the College, "especially when it undertakes any special work that will improve agriculture," bore unusual significance. This was the first executive blessing for the proposed experiment station, and it would bear fruit in the legislative sessions that spring.

The administration of President Levi Stockbridge was a brief one and in some ways not a popular one. He had not been the choice of the alumni, and the press was cool to him. The operation of the farm had come in for severe criticism, and his candidacy for election to Congress in 1880 on the Greenback ticket did not set

well with the local newspapers.[27] It was, therefore, without much sense of support that he set about his task of staving off the closing of the college. The first step was to balance the budget of $24,000. This he did, with stringent economy exercised primarily in the allocation for teaching salaries. In 1879 the expenditures for salaries were $17,461; in 1882, less than $10,000. The next step was to check the falling enrollment. Clark's "charity class" of eighty-eight members in 1878 had temporarily helped to fill the steadily emptying classrooms, but in the next four years, when tuition charges resumed, although at thirty-six dollars instead of seventy-five, the entering classes once more shrank to but a baker's dozen. Levi Stockbridge courageously returned to the suggestion of free-tuition scholarships, which William Clark had vigorously urged and even put into effect for a short period. Perhaps the way to more favorable legislative action had been prepared by Clark's parting shaft aimed at the subsidy of $16,000 which the state distributed annually to sustain the fairs and cattle shows of the local agricultural societies. Although an ardent horse-racing enthusiast himself, the former president had challenged the justice of such a dole for mere "hoss trots" while nothing was being contributed to student scholarships.

In 1881 Stockbridge succeeded in bringing together in Amherst, at commencement, the governor and Council, the Board of Agriculture and the College Board of Trustees to consider the issue of aid to students. An ardent plea of Trustee Daniel Needham for free tuition and a budget appropriation adequate for the needs of the College drew from Governor Long the suggestion of obligating each agricultural society which received aid from the state to provide out of its revenue at least one tuition scholarship.[28]

Before another legislature sat, Stockbridge had resigned from the College, but his efforts in various directions were to culminate in moderate success. In the spring of 1882, the legislature made its first appropriation for an experiment station, and the station soon became a reality on the M.A.C. campus. "The world moves, and . . . Beacon Hill has at last recognized the fact," sighed *The Cycle*, and added that the needless delay had put Massachusetts behind the

states of New York, Connecticut, New Jersey, and North Carolina in the progress of this movement.[29] The retiring president had also succeeded in gaining some support for his program to improve the physical plant on the campus. He had explained the need in his annual report for 1881. The original buildings, hastily constructed, were now seriously dilapidated and inadequate. North College he described as being unfit for use, and he pointed out that military drill in College Hall had been discontinued in 1878 because of the weakened condition of the building. The College needed, in addition, new facilities for a library, drill hall, dining hall and chapel; an agricultural classroom building; and a more modern residence for its president than that afforded by the 150-year-old farmhouse which was used. The start of construction of a drill hall in 1882 was the first measure of the results of his efforts. President Chadbourne succeeded in obtaining others. Ground was broken for a president's house in 1883, while the budget of 1884 contained provisions for reconstructing the dining hall and the dormitory, for the erection of a new building to serve as chapel and library, and for a new barn to be used in the horticultural program.

Of even greater import to the College, however, was the victory in 1883 for scholarships. An appropriation of $10,000 meant that many students were assured of free tuition. The entering class that fall numbered fifty.[30]

Proceeding spasmodically, but nonetheless assuredly, the government of Massachusetts had committed itself to public support of the Agricultural College. The successors of Clark and Stockbridge would not have to face another threat to bring the institution to an end.

Eleven days after Levi Stockbridge's resignation, the trustees announced the reappointment of Paul Ansel Chadbourne as president. "Glory — Hurrah — Hurrah for M.A.C.," wrote the retiring president: "I don't know whether I am on horseback or on foot because while in my secret mind I had wished this thing could be, I had thought it so far beyond possibility that it need not be mentioned." And Trustee Marshall P. Wilder aptly described the

situation in his comment that "the College has gone through its darkest days and the morning of fairer days is upon us."[31]

Chadbourne's decision to return to the campus was an expression of faith and loyalty, and entailed a heavy financial sacrifice on his part. He expected cooperation in return. With the trustees he was firm. "I shall want an advance made all along the line," he wrote as one of the conditions of his acceptance. Primary importance he attached to freedom for the president to speak on politics and religion. "I do not wish to have men or papers saying that I was in a state institution paid by the state and therefore I should keep still. No money and no position are to be weighed against any right of a citizen and this I shall teach the young men," he wrote to Governor John D. Long.[32] In this same letter he asserted that students must be serious, and discipline firm. "No man shall enter college until he is old enough to know what he goes there for, and he shall not be kept a single day after he forgets his duty as a citizen of the Commonwealth that is educating him or fails to profit by the advantages given him." As for the public, he wrote in his first annual report, "It is plainly evident that the people of the state as a whole have not understood the provisions here made for the young men of Massachusetts."[33] He called for more careful consideration by the public of the curriculum, the financial problems of needy students, and the requirements of funds for expansion of college and experiment station.

Chadbourne also turned his attention to the physical needs of the college. The existing buildings must be returned to usable condition. Of new construction, the greatest need was for a library. The Drill Hall, the construction of which had lagged for want of adequate funds, must be completed.

More important than buildings was faculty. "We must have men, the equals at least of those in other colleges, and they should be better paid." Chadbourne was faced with the task of rebuilding the staff. Of the original "Big Four," only Goodell and Goessmann remained. Instruction in botany and horticulture after Clark's departure was in the capable hands of Professor Samuel T. Maynard, a graduate in the class of 1872, who had returned to

assist the former president in his last year of teaching. The return of Chadbourne, a specialist in zoology, entomology, and geology, gave strength to the scientific department never previously enjoyed. "We have a thorough scientist, who . . . promises to place the college on a strong basis," wrote the enthusiastic student editor of the *Index*. The vacancy left by Levi Stockbridge was filled when Chadbourne brought to the campus Dr. Manly Miles, who had previously taught at the Michigan Agricultural College.

With staff reorganized, experiment station under way, and building program meeting more favorable response from the legislature, Chadbourne next looked at the curriculum. The purposes of land-grant education as he understood them had for him no implications of narrow vocational training for the sole purpose of practical farming. The Agricultural College need not defer to the classical institutions in the matter of liberal education. "No brand of learning peculiar to the old colleges was to be necessarily excluded. . . . The object of the new colleges was to obliterate the supposed superiority of the so-called 'learned professions' by securing the highest education for those who chose industrial pursuits, thus lifting agriculture and the mechanic arts from the plane of mere routine labor to the dignity of the learned professions."[34] The new curriculum, which Chadbourne planned but did not live to see in effect, tended to broaden the instruction in keeping with this philosophy. Two courses of study were now to be offered, one labeled "agricultural and scientific", and the other, "scientific and literary". A determined effort was being made not only to restore to the agricultural course the liberal elements of philosophy and history which had been lost in the 1870's, but also to increase the opportunities for the future agriculturist to study modern language, English literature, political science, and economics. In the new course, which bore the title "literary" in place of "agricultural," were to be found not only the basic sciences but also both French and German languages, and now Latin. Literature, philosophy, history, and the social sciences gave M.A.C. a program very close to that of liberal arts colleges. Chadbourne had planned well to close the gap between the old and the new colleges.

But M.A.C., which was experiencing a renaissance, was not to be guided long by Paul Chadbourne. For the second time the College lost his services, this time by his death in February of 1883. His loss deprived the College of a valued leader at a crucial juncture in her history. An able scientist, and an administrator with experience in an eastern liberal-arts college and a Midwestern land-grant university, Chadbourne had much to give in guiding the growth of the Agricultural College. In addition, the respect in which he was held by agricultural leaders in Massachusetts seemed, in the short time of his second administration, to have helped immeasurably in re-establishing public confidence in the College.

Chadbourne's successor, James Carruthers Greenough, was an experienced educator whose training and philosophy inclined him to continue the trend so recently inaugurated. "The objects of study and training are two," wrote the new president, "to form the man and to form the workman. Technical training without liberal culture subordinates the man to his employment."[35]

James Greenough was no stranger to Massachusetts. He had been born in 1829 on a farm in the town of Wendell, not far from Amherst, and attended the common schools there as well as the academies in New Salem, Bernardston, and Deerfield. Between secondary school and college he had engaged in teaching, a practice common among young men who contemplated attendance at college. After a brief period of study at the new Westfield Normal School, he had served as principal of public schools in Gloucester and Salem. The twenty-seven years from 1856 to his election to the presidency of M.A.C. were given to administrative work in normal schools in Massachusetts and Rhode Island. During this time he had completed the college course at Williams College, being graduated with honors in 1860. While serving in Providence, Rhode Island, Greenough had become associated with Brown University, where he was awarded a Master of Arts degree, elected to membership in Phi Beta Kappa, and made an examiner.[36] The new president served M.A.C. for three years, the longest tenure of any leader since Clark, and returned in 1886 to the principalship at Westfield Normal School.

Under the administration of James Greenough the College made slow but definite progress. Developments which were under way were carried to successful completion. The curricular change previously mentioned had been put into effect, and the president himself filled the post, vacant since 1879, described in the catalogue as a professorship of mental and moral science. Greenough taught philosophy, economics, and history, and he served as College pastor. Strength was added to the chemistry department by the appointment in 1885 of Charles Wellington as teacher of general and agricultural chemistry. This young man, after graduating in the class of 1873, had studied under Goessmann, and later at the Universities of Leipzig and Göttingen. He returned to his alma mater, a thoroughly trained scientist, to assist Goessmann, who was becoming more and more occupied with his responsibilities as director of the Experiment Station.[37] When Austin Bassett resigned in 1884, Greenough brought to the post of mathematics and physics Professor Clarence D. Warner. For the first time since the establishment of the College this department had an incumbent who would serve more than a period of one or two years.

Meanwhile, the situation of the College was continuing to improve in other ways, too. Income from all sources more than doubled from 1881 to 1886. Expenditures for salaries rose in the same period from $11,000 to $16,365. The General Court initiated an appropriation for scholarships in 1883, and the student body was slowly increasing in number. Further signs of change were to be seen in the renovated dormitory, and the new buildings — Chapel, Drill Hall, Experiment Station Barn, and President's House — which were erected in these years. So firm was the will now to maintain the College that the General Court granted without hesitation the funds needed to replace South College, which burned to the ground in 1885. Provided, too, was a complete replacement of laboratory equipment which had been in continuous use for nearly twenty years, and the installation of a new water main and hydrants for fire protection.[38]

The second decade of the College's history closed with the resignation of James C. Greenough. The institution, which had en-

countered a most severe test during these years, had survived and managed to grow a bit. The founding fathers, except for Goodell and Goessmann, had completed their service to the campus; and the last member of the original Board of Trustees, Marshall P. Wilder, died on December 16, 1886. But the future was reasonably secure. Small though it was, the Agricultural College was now solidly founded and had already become well known.

In addition to its service in the training of Massachusetts youth and the contribution to knowledge made by its scientists, Massachusetts Agricultural College had through these years played a significant role in the development of a sister institution in Japan. In 1876, as previously noted, William S. Clark had been invited by the Imperial Government to assist in the establishment of an agricultural college and experimental farm in the province of Hokkaido. With the assistance of three young graduates of M.A.C. — William P. Brooks, David P. Penhallow, and William Wheeler — who went to Japan with him, Clark soon developed a successful college. Also on his staff were several young Japanese agriculturists who had received training at M.A.C. When he relinquished the presidency to William Wheeler in order to return to America late in 1877, William Clark took with him the memory of a heart-warming farewell which he had received from the students whom he had inspired to learning — many to the faith of Christianity. "However little we may be appreciated at home," he wrote in the stormy year of 1879, "our honest and zealous efforts for the advancement of scientific agriculture are receiving most gratifying acknowledgment in the romantic land of Dai Nippon."[39] Wheeler, Penhallow, John C. Cutter, William P. Brooks, and, later, Horace E. Stockbridge — all graduates of M.A.C. — served on the staff of the Japanese college during the ten or fifteen years in which it was producing its own staff of teachers and administrators. Thus the Massachusetts college not only had served as a model for the Far Eastern school but also had contributed to its personnel. This positive contribution to the land which then was in the throes of transition from a feudal to a modern society left a profound impression upon the educational leaders of modern Japan.[40]

5

Recovery and Advance under Goodell

1884-1905

The resignation of James Greenough led the trustees to turn to a campus stalwart for the presidency, Henry Hill Goodell. A farm boy from nearby Ashfield, educated at Amherst College, Goodell had become one of the famous quartet on the first faculty. The mainstay of the staff in modern language, he was also its handy man, teaching gymnastics, military drill, English composition, zoology, and history, at different times. With Clark, Goessmann, and Stockbridge, he had weathered the stormy period of the College, experiencing at times diminished confidence, but never losing faith in the cause of the people's college. Perhaps because he was so versatile, or because his health was so uncertain, Goodell had not previously been saddled with the presidential duties. Now he took up the task of providing stability, restoring confidence both on and off the campus, and building for a more certain future.

Goodell's philosophy of education was not a revolutionary one. The modified curriculum would be given a fair trial, to be adapted to whatever change should become needed. His initial attention was given to maintaining a faculty of quality. In this respect the new president was eminently successful, building a staff of well-trained scientists and skillful teachers, which remained virtually in-

tact for a generation and raised the Agricultural College to a position of leadership in its field. Goessmann and Charles Wellington, a graduate of M.A.C. in 1873 and appointed to the staff in 1885, were an outstanding pair in chemistry, and Samuel T. Maynard continued his solid work in botany and horticulture to 1902. Clarence D. Warner, a Ph.D. from Johns Hopkins University, guided the mathematics department steadily for a decade. Replacements had to be made in other fields, and in this work Goodell built well. To the post in agriculture he brought, in 1888, William P. Brooks, who had recently returned from a decade of service as professor and president at Sapporo, in Japan. For the next thirty years this man would guide and develop the agricultural program of M.A.C. The loss to the science department suffered by the untimely death of Paul A. Chadbourne was now made up by the selection of Charles H. Fernald, while the religious and other teaching duties of President Greenough were taken up by the Reverend Charles S. Walker. Fernald, who had studied at Harvard under Louis Agassiz, had gained an international reputation in the field of microlepidoptera before coming to M.A.C. from the University of Maine.[1] The Reverend Charles Walker had continued study in history and philosophy at Yale after completing his undergraduate education there. He had subsequently studied economics at Amherst College, where he received his Ph.D. Both men added strength to the M.A.C. staff and, by their length of service, a consistency and depth that gave stability to the new curriculum.

In 1889 President Goodell accomplished another important step with the appointment of George F. Mills as professor of English language and rhetoric, and in the following year he restored veterinary science to its former position of importance by bringing to the campus James B. Paige. Mills, who graduated from Williams College in 1862, had for many years been principal of a preparatory school in South Williamstown. His appointment to the staff enabled Goodell to concentrate his own teaching time on modern languages and added in the field of English a scholar who was prepared to offer more than the rudiments of rhetoric and composition. "Daddy" Mills became known to

hundreds of students as a thorough and competent teacher in the humanistic tradition, and he earned the admiration and respect of all. In addition to his teaching, he served the college as treasurer for fifteen years, from 1892 to 1907, and was the first head of the division of humanities and the first dean of the College. Mills also gave faithful service to his community, serving as moderator of Amherst town meetings for years, as warden of his church, and as a member of the corporation of the Clarke School for the Deaf in Northampton.[2]

A second development early in Goodell's presidency was the establishment of the Experiment Station upon a broader and more permanent basis. As previously noted, the research of Clark, Stockbridge, and Goessmann had attracted public attention; and this, together with the donation of money by Levi Stockbridge in 1878 to finance an experiment station for a year, had helped to win in the legislature, in 1882, the first appropriation. With a sum of $3,000, and the use of two rooms in the chemistry laboratory, a farm house, and several acres of land for experimental plots, the Massachusetts State Agricultural Experiment Station had come into being under the direction of Professor Charles Goessmann. It was to continue its function as a state-supported unit, operating independently of, but in conjunction with, the College, until it was merged in 1895 with the Hatch Experiment Station which had been established in 1887 by the federal government. Although the staff was small and the resources limited, Goessmann nevertheless launched a broad program of experimental study of crops, fruits, chemicals, and fertilizers. Its series of carefully edited reports attracted such wide attention that a printing of 5,000 copies of each number was soon found to be necessary. One investigation of particular significance to Massachusetts was the study of the cranberry pest, the "fire worm."[3] Slowly the financial support of the station at Amherst improved. This meant that by 1885 Goessmann was able to add five young assistants to his staff and to acquire a new laboratory building, which today is known as the West Experiment Station. With this development, the research program moved

out of the chemistry laboratory, leaving there more space for instructional work.

The decision of Congress in 1887 to support agricultural experimental research led to the anomalous situation of having two such stations on the M.A.C. campus for several years. The Hatch Act specified that the station to be supported by federal funds must be a department of the college, but Massachusetts had no inclination to place Goessmann's group in a similar position. An agreement was reached to divide responsibility in order to avoid duplication of effort. The new experiment station, under the direction of President Goodell, took charge of all research except that in the field of chemistry. William P. Brooks in agriculture and Samuel T. Maynard in horticulture, together with Charles H. Fernald in entomology and Clarence D. Warner in meteorology, made up the first staff of this group. In time the Massachusetts legislature was persuaded of the advantages of unity, and a merger was effected in 1895. Professor Goessmann, who continued his work in chemical fertilizers and fertilizer control until his retirement in 1907, enjoyed the title of honorary director.

So it was that in a brief period of five or six years Goodell had done what was expected of him. The College had been placed upon a firm footing, finances were improved, student enrollment returned to normal (in 1890 the College exceeded the enrollment of 1870 for the first time in twenty years, having 144 students), all vacancies on the staff were filled by able people, and the research work was established on an independent basis. Indeed the small college, which by 1892 had granted degrees to 361 candidates, despite its impediments, had discharged its educational responsibilities faithfully. Over fifty percent of its alumni were found to be engaged in farming and closely allied fields. Of these, three men were presidents of agricultural colleges, three were directors of experiment stations, and twenty-one were college teachers. "No other college has furnished so many men for such positions," wrote President Goodell in 1892.[4] Listed, too, among the graduates who had established professional status were nine lawyers, eighteen engineers, eighteen doctors, eleven teachers of

non-agricultural subjects, and five clergymen. After twenty-five years of vacillating fortunes, the promise of greater achievement for the school seemed at hand.

During the severe depression that gripped the country in the middle nineties, the Massachusetts Agricultural College faced a test of its new strength. The national economy was subjected to severe strain; unrest among the agricultural groups of the nation, and unemployment in the industrial centers, threatened the equilibrium of the social order. What effects would this have on the College? Were the strains of the 1870's to be repeated?

Fortunately, the College did not experience a repetition of the earlier crisis. Although economic straits did lead to lowered enrollment — there were eighty-one students in 1896 where there had been nearly twice as many three years earlier — assured governmental support now not only made curtailment of salaries and positions unnecessary but allowed instead for increases of both. For Congress, by a second Morrill Act, in 1890, had more than doubled the support which the College received in the original land grant. President Goodell was able to announce in 1893 the initiation of steps highly important in the growth of the College, innovations that would go far to improve her staff and add depth and breadth to her curriculum. Five new assistant professors were to be appointed, enabling long-overburdened professors to concentrate their attention upon more advanced instruction. Consequently, new courses were added at the upper levels, together with a regularized program of graduate instruction. When the influx of students would resume, these students would find a better college and a stronger staff. Thanks to larger legislative appropriation, they would also find more numerous opportunities for earning wages, and increased funds for scholarship.

The curriculum which was perfected by the middle nineties was to continue virtually unchanged for the next ten years as the pattern of agricultural education at Massachusetts. And the corps of teachers in whose hands it rested made a lasting impression upon a student body that after 1896 steadily increased in size.

At the start of his college career the student came under the tutelage of the recently appointed teachers. During his first year, rhetoric with Herman Babson and elementary French with George F. Babb occupied his attention in language. In agriculture, Fred S. Cooley taught him something of the history of farming and the breeds of domesticated animals. College algebra and geometry were interestingly presented by Philip "Billy" Hasbrouck, who had succeeded Clarence Warner in 1894. The study of structural botany under Ralph E. Smith and basic chemistry with Samuel F. Howard rounded out the course in the freshman year. In his second year the student continued, for the most part, the same work, and with the same instructors. An introduction to American literature, taught by Babson, and the beginning of German language, by Smith, the chemistry professor, were studies in the humanities which had recently been added to the curriculum.

After his first two years the student took his work in advanced courses with the senior professors. He came to know the principal figures of the campus, the experienced teachers and investigators who supplied the leadership of the College.

Thus the junior was introduced to William P. Brooks, who conducted a well-known course in crops and fertilizers, and he met Professor Samuel Maynard in landscape gardening and market gardening. In chemistry the popular Charles Wellington took him through the techniques of qualitative anaylsis, while new vistas in zoology and entomology were opened up to him by Richard S. Lull and Charles H. Fernald. In physics he continued with Hasbrouck. A new experience awaited him in coming under the influence of Professor George Mills, who conducted the important survey course in English literature. It was Mills who had established literature in the 1890's as a significant part of the college curriculum.

An innovation had been introduced in the senior course in 1892, a modified elective system. Only Mills' course in the history of the English language and the senior lecture in military science were required of all. Beyond that, the senior student had the option of several electives, which afforded him the opportunity to sit

under his favorite professor, to pursue in greater depth the subjects which had aroused particular interest, or to explore an entirely new field. Despite the fears of some conservative faculty members that intellectual anarchy was imminent, the freedom scarcely destroyed the symmetry of the Massachusetts curriculum. The most popular electives in 1894 proved to be the courses of Walker in political economy, of Brooks in agriculture, Goodell in German, and Goessmann in chemistry. Others which were widely elected included the entomology taught by Charles H. Fernald, crypto-organic botany by George E. Stone, and veterinary medicine by James Paige. The new system had enabled the student to beat his pathway to the classrooms of the master teachers and scientists. Depth rather than dispersion had resulted from this departure from uniformity. A richness had been added to the program, and Goodell and his faculty had brought to maturity the dreams of Wilder and Haven, of Clark and Stockbridge. Agricultural education, although it still encompassed much of the practical, had now become established upon a solid foundation of modern science. "The laboratory is the pivot on which the modern college wheels," wrote Goodell. "The principles laid down in the lecture room or verified and proved true by the student himself in the laboratory. . . . In this respect the colleges of 1900 differ radically from the colleges of 1862."[5] Appropriately, the president had laid to rest the anachronous practice of compulsory student labor.[6] "Why should the boy who has hoed corn and dug potatoes all his life at home be set to doing it at college? Is not his time more valuable than that? Have not his parents a right to demand that the time for which they are paying should be used in the acquisition of knowledge not to be obtained at home?"[7]

Indeed, the developments at M.A.C. in the 1890's had done much to enable the student to become the master and not the slave of his occupation.

The expansion of staff and curriculum also led, in 1892, to another important step, the resumption of graduate instruction. Training of this kind was not an innovation, for some had been offered from the start; and a few students had studied under Goess-

mann, Clark, and Stockbridge. But the College had awarded no advanced degree, and in the eighties the students had disappeared. The reinstated program provided for the awarding of degrees upon completion of studies in mathematics, physics, chemistry, agriculture, botany, entomology, and veterinary science.[8] Thirteen graduate students were in residence in the following year, and the first Masters' degrees were conferred upon two successful candidates in 1896. Within a short time, demand arose for extending graduate study through the next degree, and in 1902 Warren Elmer Hinds received the first degree of Doctor of Philosophy, having completed a major program in entomology. Massachusetts had taken a place in the ranks of the institutions for training of advanced teachers and research specialists.

A further innovation which was announced by President Goodell in 1892, one which proved to be in advance of its time, was the introduction of a two-year, non-degree course in practical agriculture. This also was not entirely new, for it had been preceded as early as the 1870's by the admission of special students for the purpose of taking short courses, particularly in the winter terms. Goodell now announced that a systematized program would be offered to boys who had reached the age of fifteen and possessed a satisfactory command of English grammar, arithmetic, geography, and American history. The course was continued for three years, with a total enrollment of sixty-five, of whom twenty-five completed the requirements for a diploma. It was then suspended, to be replaced by a series of ten short winter courses in several branches of practical work. When it was revived twenty years later, the two-year program met with greater success.

The Agricultural College was brought face to face in the 1890's with still another new task, that of educating women. The institution was already some twenty years behind the leaders among the land-grant colleges in embarking upon coeducation. When women began to knock at the doors of M.A.C. Iowa State Agricultural College had accepted nine young women in its first class in 1869, and provided "normal and ladies' " courses for them. Women were also accepted in the land-grant colleges of Michigan, Illinois, and

New York; in Massachusetts they were beginning to enroll in Boston University, and three were accepted at M.I.T. for study in chemistry.[9] The first female student to enroll in the course at M.A.C. was admitted in 1892, and President Goodell took this occasion to proclaim that "there is no reason why the young women of the Commonwealth should not avail themselves of the opportunities offered here. The doors are open, and they will be welcomed by both teacher and student."[10] The invitation did not acknowledge, however, that no housing facilities for women were available on the campus and that the curriculum available led to occupations dominated by men.

Although there were to be a few women students in the next few years, coeducation at M.A.C. was not to be firmly established until 1920. For a generation the College drifted, making only minor efforts to accommodate the rising interest among young women in higher education. The most positive of these efforts was adopted by the trustees in 1897, but not implemented by the College until five years later. This was the establishment of a special course, two years in length, to include instruction in botany, horticulture, chemistry, and modern language. This assortment of information upon plants, the common products of the orchard, the techniques of the garden and the lawn, was to be embellished for the prospective homemaker with an introduction to French or German, should she wish.[11] That few ever did would come as no surprise to the modern generation. After four years of trial, during which there were but ten girls enrolled and only one was awarded a certificate, the experiment was dropped. Although the president announced that an agreement had been reached with Simmons College to replace this with a joint course combining the offerings at the latter college with a program in horticulture at M.A.C., nothing seems to have been effected.[12]

Although no further effort was made to provide special courses, the College continued to enroll two or three women in each of the succeeding classes. Dormitory space was provided at last when Draper Hall was opened in 1905. But this event, hailed by the male students as the beginning of a new era in M.A.C. history, did not

result in any sudden increase in the number of women students; there were but nine enrolled in all classes for that year, the first in which the College awarded degrees to women. To the student editor of the *College Signal* the results of the new departure were not significant. The few women students he found to be neither brilliant nor stupid, and he was relieved that his campus was not overrun with "giggling girls." A few weeks later the paper would comment, with a faint tinge of regret, that rumors of large numbers of Simmons girls enrolling at M.A.C. were "fake as usual."[13] No more attention would be given to the fate of women's education at M.A.C. until President Butterfield took up the cause near the end of 1917 and boldly called for the inauguration of a women's college on the campus.

It had become apparent by 1900 that, though the College would progress, it would not be transformed under the Goodell administration. Experiments such as the literary curriculum of Chadbourne and Greenough, and the two-year programs for both men and women, had been tried and abandoned. The course in scientific agriculture and horticulture, first dreamed of by Theodore Sedgwick, and established by Clark and Stockbridge, was the basic college offering. Progress had been achieved through the strengthening of the staff and the addition of more advanced courses in the established departments. For additional improvement President Goodell turned his attention to the equipment of modern laboratories and the provision of a library.

The establishment of the College library was largely a direct result of the labors of Henry Hill Goodell, though he was supported by a number of the faculty, trustees, and alumni. Although the first trustees had confidently voted on November 2, 1865, to charge the president and secretary with the duty of preparing a library, little money was allotted for books in the meager budgets of the next twenty years. President Clark had persistently emphasized in his annual reports the need for books and for proper facilities for their storage and use. Although Amherst College had generously offered the use of its library of over 30,000 volumes, Clark realized that his college could not expect to draw upon its

friendly neighbor for books and equipment that were in daily use at both institutions.[14] For fifteen years all efforts to obtain an adequate library building were unavailing, and the accumulation of books came to a halt after the first two or three years. This weakness of the College did not escape the attention of critics in this troubled period.[15]

Progress in the establishment of an adequate library was resumed in 1883, when faculty, trustees, and alumni coordinated their efforts to advance this college interest. President Greenough, backed strongly by the Board of Trustees, was successful in obtaining funds from the legislature in that year for the erection of a new building to serve as both library and chapel. At the same time the alumni, with the active assistance of Professors Goodell and Maynard, had inaugurated a drive for funds. At the commencement of 1884 President Greenough announced the receipt of over $17,000, together with a considerable number of books and journals.[16]

In 1885 Goodell became both president of M.A.C. and her first librarian. During the remainder of his period of service he devoted a great part of his efforts to making the library adequate to the standards of education which he cherished for the College. Continuing the efforts of Greenough to solicit the aid of alumni, he was successful in adding to the Library Fund and in expanding the reservoir of books.[17] By 1887 Goodell reported that there had been a 300 percent increase in books since the alumni had promised support; and in 1902, when the lower floor of the library building held over 23,000 volumes, the president warned the legislature that construction of a new building could no longer be delayed, for the shelves were overflowing and books were already piling up on the floor.[18] So successful had the president been that the library had outgrown its quarters and the time he could give to direct it. To assist him, in 1899, Miss Ella Frances Hall was appointed as the first full-time librarian of the College. After Goodell's death, Marquis F. Dickinson took the occasion of the inauguration of the new president in October, 1906, to plead that a Henry Hill Goodell Memorial Library be erected to assure the continued development

of the library. Unfortunately, thirty more years would pass before this request would be granted.[19]

By 1900 the College had successfully completed a phase of building and rebuilding; it had experimented modestly, keeping some of its new features and discarding others. Weak spots had been improved, resources strengthened, and all was in readiness to move forward to greater achievement in the new century. And the new era was to be one which would pose new problems, and challenge the College to make adaptations to the changes that were rapidly transforming American society from a rural into an urban one. In Massachusetts particularly, these changing conditions would have a strong impact. That the student body sensed the inevitability of this trend may be seen in their eagerness to be rid of the aura of agriculture and to assume the aspects of a state college of arts and sciences. In 1899 this eagerness had produced a decision to rewrite college songs in which the name "Massachusetts" replaced all references to "M.A.C.," and to alter athletic lettering accordingly. Two years later the student body formally voted to drop all use of "Agricultural" and "Aggie" from campus publications.

But the transformation of the College was not to be hastened. Goodell and his faculty were ready for moderate expansion, but not for upheaval. A modest change in curriculum requirements occurred in 1903, when the elective feature was introduced into the program for junior year. This was not the free elective concept of Eliot's Harvard, but the much more limited choice identified with a "major" concentration. Six groups of interrelated courses were available for the third-year students, of which three were concerned with basic agriculture or horticulture. The three others — biology, mathematics, and chemistry — abandoned the required work which hitherto had been the focal point of the college curriculum. No longer was the student who was not anticipating a profession in agriculture required to be involved in its study beyond the sophomore year. Where the student in the Pioneer Class had spent thirty-five percent of his course on agricultural and horticultural subjects, the graduate of thirty-five years later was required to

spend but ten percent on these courses. And even the student specializing in agriculture spent but twenty percent of his time in agricultural courses. In every major at least twenty-five percent of the course work was devoted to the humanities and the social sciences. The remainder was devoted to the pursuit of the natural sciences and military training. Agriculture, while still an important field of study, had nonetheless yielded its priority and become one scientific specialty among several equals. Seven of the thirty-four juniors in the fall of 1903 elected it as their major, and fifteen chose the most popular course, horticulture, which included the field of landscape gardening, a course which gained rapidly in popularity after the appointment of Frank A. Waugh in 1902.

Enrollment slowly but steadily expanded. The entering class in 1901 exceeded fifty for the first time since 1878, when Clark's "charity" class had been admitted. Soon the student body exceeded the 157 that had been in the largest previous undergraduate group, that of 1893. By 1905, Goodell's last year, 218 students were in the four classes, and the incoming class was the largest on record.

In appearance the campus was also undergoing steady transformation. In 1888 the last swamp had been drained and the western slope cleared of brush and stumps; the worm-eaten rail fences which once had surrounded the campus were replaced with "neat wire fences." Four years later the unsightly area in the center of the campus was transformed into College Pond by the construction of a dam. Trustee William Wheeler did the civil engineering for this dam. One gathers that in its early years College Pond fell somewhat short of esthetic beauty and may not have fulfilled its planned function of supplying ice to refrigerate dairy and fruit products; for the *College Signal* was complaining of it in realistic prose in 1906 as being an unsightly and odorous collection of mud, weeds and grass.[20]

Other changes came in time. In 1894 a modern sewage system was constructed, and three years later the installation of new water mains and an emergency reservoir provided improved fire protection.[21] The addition of a steam heating plant in 1902, and the

installation of dining facilities in Draper Hall, went far in modernizing the conditions under which the students lived and worked.

Of greater significance to their education, however, were the improvements in classroom and laboratory facilities. The first college laboratory to be added to the original buildings was erected in 1887. It was a small wooden-frame building for research and instructional work in entomology. (This building, known to a generation of students in more recent times as the Old Math Building, was enlarged in 1905 and equipped with a greenhouse.) In 1899 a spacious laboratory was erected on the southern border of the campus to house the work in veterinary science. To these quarters Professor James Paige, rapidly becoming an outstanding college figure, was able to move the animals and other laboratory supplies which formerly had found their storage places in the cellar of his home.[22] Although the needs of heating and dining postponed for a time the erection of further laboratories, Goodell did not relax his efforts for added instructional facilities. Before his death he was to see the completion of Wilder Hall and to preside over the planning of the next buildings to come: Clark, French, and Fernald Halls.

The architects of this expanding campus were not, unfortunately, drawing plans for the campus as a whole. Their buildings were small, adequate only for the research and instructional work of a single department in a college of 500 or 600 students. Functional in design, and plain in appearance, they contributed little to the esthetic appeal of the campus.

Nor were the landscape designers to be any more successful than were those who had dreamed in William Clark's day of garden-decorated lawns and terraces. The elaborate plan for a botanic garden, prepared in 1870 and illustrated in water colors by Ignatz A. Pilot, had never been developed. Part of this plan was to establish a pond to be filled with aquatic plants in the swampy area where Fernald Hall now stands. Between 1870 and 1900 the nurseries and grounds were in the care of Professor Maynard. A great lover of trees, he saw to it that many were planted. His influence is to be seen in the presence of many rare and important species, usually placed singly or in short rows. No mass planting

was undertaken, nor was the dream realized of "a Massachusetts garden" which would contain specimens of the state's native plants and wild flowers.[23] Abandoned, too, was Maynard's vision of a garden to be placed on the banks of the college pond.[24]

The new century, however, was to bring renewed efforts to improve the artistic qualities of the campus. Particularly involved were Professor Frank A. Waugh, who succeeded Maynard in 1902, and botanist George E. Stone. Although a professional landscape architect was hired in 1902 to develop a campus plan — George H. Parker, a graduate of M.A.C. in 1876, and superintendent of Keeney Park in Hartford, Connecticut, the resulting plan proved to be more concerned with roads and shrubs than with the location of buildings and their relation to college activities. Shortly thereafter a Commission on Grounds was established, which included Trustees James Draper and William Wheeler, both of whom were very much interested in campus planning, and Professor Waugh. The results of this action would not become immediately apparent, but a step had been taken which would lead to a permanent and consistent policy for campus architecture.[25]

The service of Henry H. Goodell came to a close early in the year of 1905. His last few years had been a constant struggle against disease, but he had refused to spare himself and had persisted as long as possible in his efforts to develop the College. The institution which he left after thirty-eight years as professor and president was small in size but solidly grounded. Significant strengthening of the faculty and the curriculum had been achieved. The Experiment Station was established on a firm foundation of state and federal support. Although the College was not widely known, its graduates were to be found in prominent positions in government, education, and the professions.

Both president and student body felt a keen sense of satisfaction when the College won the grand prize for its exhibit of its educational work at the Louisiana Purchase Exposition held in St. Louis in 1904.[26] The prize was a glistening symbol for them of national recognition of past accomplishments — and it also symbolized a future of hope.

6

Student Life

1870-1905

The student body in Goodell's last year on the campus was surprisingly similar to what it had been in his first four years as professor. Although it was about twice as large, 250 in 1904 as compared with 123 in 1870, and included four women students, in most respects the type of student and student life on campus in 1905 compared very closely with that of 1870.

Three-fifths of the 1905 students came from small rural communities in Massachusetts and were from the farming and industrial classes for whom the land-grant college had been designed. Some eighty-nine of the Commonwealth's 350 cities and towns were represented, but only two-fifths of the students came from urban communities. One-third of the fathers of these students were farmers, and twenty percent were wage earners in industry. Another third of the parents were engaged in their own small business enterprises, and one-tenth were to be found in the professions. Over its nearly forty years of existence, the College had drawn but few students from other parts of the nation, but in nearly every year it did have several from foreign countries. Enrolled in 1869 were three from Hawaii and one from Brazil, and four Japanese students entered in 1871. By 1905 some sixty-six foreign students from fourteen differ-

ent countries had entered the college and twenty-four had been awarded degrees.[1] The presence of these foreign students gave the American students at an early date the opportunity to profit from exchange of ideas and experiences, and it gave the college itself a means of obtaining international recognition.

Dormitories, which had been nearly adequate for a male student population of 100 or so, were by 1905 entirely inadequate, and students were forced to find their own quarters in the town. Slowly, living space in North and South Colleges gave way to rooms for the Social Union, for classes, and, after 1902, for administrative offices. But not until 1935 did the College take steps to provide additional residential quarters for men on the campus, and only in 1920 had it erected its first women's dormitory, Abigail Adams House.

Dormitory life at M.A.C. exhibited most of the characteristics common to dormitory life in other institutions of higher learning. While tenants of some suites had a taste for overstuffed furniture, heavy drapes, and well-filled bookcases, those in others were careless about such matters. A few students appeared to be possessed of a chronic disregard for order and the preservation of property. Hand-fired heating stoves, and lavatories supplied by water-pails laboriously carried to upper floors, were ever an invitation to pranksters, and in this respect Massachusetts students were not laggard.

Instituted early was a system copied from the Military Academy at West Point involving inspection of rooms by the officers detailed on the campus. It failed, however, to achieve the desired effect, and the problem of discipline and the cost of repairs had come forcibly to the attention of the trustees by 1879. Their answer was the introduction of a new system in which the student leased his rooms and was responsible for all extraordinary repair costs of his suite and adjoining halls.[2] Whether or not this change resulted in material improvements is not recorded, but the practice was abandoned a few years later.

The arrangements for dining on the campus were simple ones and became the object of student complaint at an early date. Until Draper Hall was provided in 1903 the students took their meals in

a wooden hall on the north bank of the ravine where Flint Hall now stands. Dissatisfaction with the college management led to an innovation in 1888 when all the management was entrusted to the students. For fifteen years the Student Dining Club had full charge of meals, but the results seem to have been very much the same. Costs to the members were not lowered, and student criticism was only slightly relaxed. When Draper Hall was opened the control returned to the College, and the transition was completed without recorded comment. Doubtless there was but slight reluctance to surrender this student experiment in cooperation.

Students in the 1870's were highly gregarious, and organizations galore sprang up on the campus to claim their attention and vie for publicity in the inevitable yearbook. The predominant loyalty, however, was to the class unit, a group which up to 1900 seldom exceeded thirty in number. The intimacy and unity which were natural for groups of this limited size were fostered also by the unity of the curriculum as well as by campus traditions that grew with the College. Four years of experience in common cemented a close relationship and helped to make the term "classmate" a realistic label.

Class rivalry was exhibited in almost every student activity — in athletics, musical clubs, debating, social affairs. In its more boisterous forms this competitive urge was demonstrated in hazing, in a variety of roughhouse antics described as "rushes," and in the jostling that accompanied the annual class banquet meetings. Hazing had been imported by the first sophomore class. The common forms of horseplay — duckings, blanket bouncings, and "room-stacking" — were supplemented after 1892 by competitions which utilized the college pond as the major means of humiliation and mirth. The 1890's saw the origination of the "Botanic Walk" rush, in which two rival classes clashed upon the bridge which crossed the pond's outlet. It was inevitable, too, that the annual freshman-sophomore rope-pulling contest, which had originated in the eighties as a genuine athletic competition, should come to utilize the opposite borders of the pond for its setting.

Hazing and other forms of class rivalry were still vigorous

at the turn of the century but were to diminish in intensity as the new century progressed. In athletics after 1900 the intercollegiate competitions would draw the major attention, detracting from the intramural program, while other campus activities would center in organizations that represented the entire student body. Class loyalties weakened as the groups increased in size. The elective system tended to disperse the students in various classes, and the fraternity system slowly worked to replace the class organization as the collective form of student social activity. President Goodell frequently expressed his disapproval of hazing, and threatened suspension of the officers of classes that persisted in holding rushes.

Fraternities had been established early in the development of the College. The D.G.K. Society and Q.T.V. had appeared in 1869, while four years later Phi Sigma Kappa was born in what started out as a college prank. Six sophomores conceived the novel idea of initiating a guileless student into the mysteries of a nonexistent secret society. However, becoming intrigued with the elaborate ritual and detailed constitution which they created for the purpose, the group concluded by establishing a genuine fraternity.[3] Housed in their own suites in North College and never growing to include more than a dozen or fifteen members, these three secret societies met the needs of the small student body for organizations of this type for over twenty years. Not until the student body had become considerably larger was another permanent social group established.

The early fraternities, although including a minor fraction of the student body, nevertheless established for themselves an important role in campus life and attracted students of high academic standing.[4] One, at least, aspired to higher achievement than mere social conviviality: for D.G.K. established in 1879 an annual publication, *The Cycle.* This journal, appearing at commencement time, and including college news, editorials, addresses, essays, and an occasional poem, set a high standard for college publication. Until the *Aggie Life,* a campus weekly, was established in in 1890, *The Cycle* and *The Index,* a yearbook published by each junior class, were the only publications that preserved the record of a developing college.

By the 1890's the fraternity system had expanded, taking on a broader campus role. Including now all but one-tenth of the college body, the fraternities developed into residential units, evolved a form of self-government, and became the chief promoters of the social life of the campus. The urge for group living had been strong from the opening days of the College. Perhaps because of official discouragement, off-campus housing clubs had not developed.[5] But dining clubs sprang up in the college halls and gave evidence of their existence by prominent listing in the annual yearbook, *The Index*. For twenty years members of fraternities experienced their communal living in similar fashion in dining, and by occupying adjoining suites in the dormitories.

By 1891, however, the fraternities had reached that stage of maturity in which ownership of residential quarters offered strong appeal and seemed to be possible. In that year D.G.K., with the blessing of President Goodell, who saw this as a fortuitous move for a college already having growing pains, bought and remodeled a house in Amherst which was adequate to accommodate fourteen students. Phi Sigma Kappa acquired title to a plot of land at the same time, but was forced by the depression to postpone construction for several years more.[6] Slowly, and on a very modest scale, the fraternity "house" system became a part of M.A.C. For various reasons it would not emulate the burdensome investments in real estate being made at many of the private colleges.

The growth of the fraternity brought problems that in turn challenged enterprising students to seek solutions. One of these problems was the intensive competition which developed in the search for new members from the incoming class. In 1899 the four groups then in existence collaborated to create the Fraternity Conference, which was composed of two student representatives and one alumnus from each society. The Conference postponed pledging until the completion of the first term in an effort to restore a semblance of balance to the process.[7] By this move, having restored amicable relations among the fraternities, the Conference now became the chief promoter of their festivities, especially the all-campus dances.

Such were the beginnings of the fraternity system at M.A.C. Extremely modest in aspiration, the social unit avoided the mistake of imposing financial strain upon the student member, or making such demands upon his attention and his loyalties as would tend to detract from his enthusiasm for the entire college or to undermine the democratic foundations of campus life. The fraternity system at M.A.C. would not outrun the modest social aims for which it had been founded.

In the gay nineties the fraternities succeeded in bringing to the campus a new concern for the pleasures of mixed society. In the earlier years the occasions for inviting young women to the campus had been few and far between, and were usually made possible only by the cooperation of the ladies of faculty families. Guests who came by trolley car or carriage for the college husking bees or fancy-dress skating parties were entertained in the homes of the professors. The possibilities of establishing coeducation at M.A.C. seem by 1890 to have aroused widespread interest among the students and inspired new planning for greater social entertainment. What disappointment must have accompanied the departure of the only young lady in 1892, how popular the Misses Esther Cushman and Monica Sanborn, who became freshmen in 1901![8] In 1891 the Senior Promenade was instituted in connection with commencement activities, but was of interest almost exclusively to the seniors and the young alumni. But in March of 1895 the students, aided by the faculty, established the first formal dance which attracted the entire campus, the Military Ball. These gala occasions quickly became accepted as tradition, although the lack of dress uniforms turned the Military Ball into a Junior Promenade shortly after 1900. The campus easily adopted the manners of social formality — engraved invitations, leather-covered programs, gay decorations, and comfortable furnishings for the barn-like Drill Hall.[9] The more frequent informal dances had also established a claim on student attention, and five of these were held during the academic year of 1904-1905. "Semiformal" would be more descriptive by the standards of 1960, for these affairs were held from 5:00 to 9:00 p.m. and were equipped with a

professional orchestra and catered evening meal. Time permitted a rally around a bonfire and a stroll around the campus walks before the departing trolley car signaled the curfew for the evening's pleasure.

Although several clubs dedicated to more intellectual purposes had been attempted at an early date, of these only the Washington Irving Literary Society and the College Christian Union had managed to survive. A third, known as the College Shakespearean Society, appeared in 1879 and had a curious history. It was formed for the purpose of promoting understanding of Shakespeare and also as a protest against the existence of secret societies on the campus. No student was eligible for the "Shakes" who held membership in a secret fraternity. However, by the end of 1880 the society formally became affiliated with a national fraternity, and formed a corporation in 1892 preparatory to becoming the owner of a residence. The house was acquired in 1910, and in 1912 the society formally became affiliated with the national fraternity Alpha Sigma Phi. Reading of Shakespeare had now found its place in English courses, and the "Shakes" had long since identified themselves with more social functions.

By the mid-1890's the literary society seems to have outlived its usefulness. The Washington Irving Literary Society, after resorting to mock trials in place of literary efforts in a vain effort to preserve interest, finally disbanded. Its demise was doubtless inevitable and may have been the natural result of a concatenation of forces. The development of courses in English literature by George Mills did much to gratify the interest which had brought them into being. Then, too, the establishment of the *Aggie Life,* the first college newspaper, gave a new outlet to energies which formerly had gone into the writing of the *Irving Gazette.* Departmental clubs, such as the Natural History Club, founded in 1884, the Chemical Club in 1891, and the Fernald Club (entomology club) in 1897, reflected the rising concern for the mysteries of science and the developing habit of identifying academic organizations with the programs of the instructional departments. The social role of the literary societies, which had been of major significance in the

1870's, had passed by 1895 to the fraternities. When the Social Union had been formed in 1872, eighty percent of the student body had held membership, while only thirty percent belonged to the fraternities. In the final year of the Irving Society's existence, over ninety percent of the students held membership in the four fraternities.

The encouragement of religion received ample attention on the M.A.C. campus in the early 1870's. Organized by the students, the College Christian Union conducted a program of regular Sunday services and also ran a series of Bible classes. While preaching at the campus services commonly fell to the professor of mental and moral science, occasionally a service was conducted by the president of the College. Regularity of attendance at worship was required by the faculty, and the College Christian Union itself sought to inject added meaning into the spiritual life of the students by encouraging reading in its library of religious literature.

As the 1870's wore on, however, the religious activities were no longer conducted with regularity and seemed to lose appeal. Under the first chaplain, the Reverend Henry W. Parker, the Sunday services had been designed to be an integral part of his course in philosophy. "Pulpit instruction," he wrote, "goes over much of the ground of practical ethics . . . The Bible-class exercise has resolved itself into a brief, rapid lecture, [sic] for the most part the subjects [are] . . . chiefly the prophecies, the parables and the Book of Exodus."[10] But the pressure of his teaching duties had forced Parker to drop Sunday services, and the boys were encouraged to attend the Amherst churches.

In the early 1880's renewed concern for the vigor of religion was felt upon the campus. The College Christian Union, never a large society, now was replaced by a newly organized unit of the Young Men's Christian Association. This organization was successful in attracting a larger number of students to its activities. In 1882 daily morning devotions were inaugurated, with the president and several members of the faculty taking part. Regular Sunday services were resumed on the campus. Presidents Chadbourne and Greenough occupied the pulpit on a number of occasions, and

prominent clergymen from nearby cities and towns were frequently invited to preside.

During Goodell's presidency the religious life of the campus conformed to the conventional pattern of meetings and activities, but suffered some in the intensity of devotion. Chapel exercises were in the hands of Charles S. Walker, a Presbyterian clergyman who had been appointed to the chair of Moral Science after the resignation of President Greenough. This professor, a graduate of Yale University, had held a number of pastorates before accepting the teaching position at M.A.C. While pastor of a church in Amherst, he had earned the degree of Ph.D. at Amherst College, writing a thesis in which he undertook to refute some of the social theories of Herbert Spencer. Although able to stir student interest in some of the reform movements of his day, such as temperance and the labor movement, he was unable to hold them up to a high level of religious enthusiasm. Chapel attendance was ragged in the 1890's and interest shifted to the Bible classes offered by George F. Mills.[11] When the report circulated among the students in 1899 that the faculty favored making attendance at Sunday services voluntary, *Aggie Life* applauded wih the comments, "A step from the dark ages. . . . Compulsory chapel smacks too much of medievalism."[12] In 1903 the Sunday services were suspended altogether. In his last years Professor Walker frequently found himself the object of student pranks, such as the removing of his classroom furniture to the island in the campus pond or the exchanging of the Bible in the chapel for a copy of Webster's dictionary. Possibly the students had not found their attitudes compatible with the professor's defense of the gold standard, or with his urgings to hold fast to the farm life and to make it "so much more desirable than the strife and struggle of the city street that the tenement house and the saloon, the lofty flat and the clubhouse, shall be deserted . . ."[13] Charles Walker was an enthusiast of agricultural education and devoted to the land-grant ideal of the educated gentleman farmer, but his Jeffersonian preachments — "the politicians, the manufacturers, those engaged in transportation and trade, the professions, the fashionable world, none of these

as a class can surpass the farmers of America in the annual product of sterling character and noble manhood; few can equal them" and "the future of America belongs not to the city but to the country"[14]— must have chilled the minds of many an inquisitive student anticipating his future in an industrialized America.

The history of various other extracurricular activities of the Massachusetts student reveals that the decade of the 1890's was marked by a broadening of student interests and a deepening urge to self-assertion and creativity. In the area of music, new clubs were formed, and musical organizations attempted new modes of performance. Musical activities in the very earliest days had been confined to singing groups — choir, glee club, and quartets, and the college orchestra was organized in 1870. The small college of the first quarter century could supply no more than half a dozen players and such direction as was found among the students or from a faculty volunteer. In 1890, however, a banjo and guitar club was organized, and shortly a band, which honored the vigorous president of the 1870's with its name — the Clark Memorial Band. By 1900 this group included sixteen pieces, was acquiring its own equipment, and received training instruction from an instructor supplied by the College. As yet, it had no uniforms.[15] In 1905 a step was taken for obtaining more adequate financial support by organizing the several campus musical clubs into a single association.[16]

Other new outlets for student energies opened up in this decade. The pleasures of journalism inspired a group in 1890 to bring forth the first all-college newspaper, the *Aggie Life*. Previous efforts had been confined to the occasional publications of fraternities and to annuals such as the *Index,* a conventional college yearbook which featured class biographies and records of a few events of interest to the participants, and which was slanted toward the humorous. The new biweekly *Aggie Life* was well edited, and it printed campus news items of importance, editorials, biographical sketches of faculty, and occasional essays contributed by students or professors. Campus editors were quick to organize into a Press Club (1892), and through it to establish affiliations with

other college groups and with several metropolitan dailies.

In their athletic activities the Massachusetts students kept abreast of developments in collegiate sports, but kept their competition to a moderate scale. During the first ten years their contests with teams from off the campus were limited to baseball and rowing. Interclass games occupied most of their attention. Organized play was on strictly amateur basis, for the teams were managed, coached, and financed entirely by students.

Baseball, the first sport to become established on the campus, continued to occupy the position as the major college sport of the spring season. But conditions for playing continued unimproved in the 1870's and 1880's; there was but little equipment, and the ungraded lawn where Goodell Library now stands offered the only adequate field. That inconveniences must have existed on other campus diamonds one gathers from a member of the class of 1887 who recalled straddling a brook on one field and dashing between two buildings on another to catch balls hit to his left-field position. Interest in intercollegiate competition was not all-absorbing, but it was sufficient to maintain a team which played a brief schedule with average success. By 1877 sufficient concern for the niceties of appearance had resulted in the adoption of a college uniform decorated with the colors maroon and white.

The enthusiasm for crew racing, which had developed in early competition with Amherst College and had reached its apogee in the record victory of 1871 at Ingleside, proved to be shortlived. M.A.C. participated in two more annual regattas, but without spectacular results, and in 1875 it was announced that the "Naval Association" had been dissolved. After 1875 intercollegiate competition of all forms gave ground to intramural sports as a result of the shrinking enrollment and the general lack of campus morale. Interclass rivalry managed to keep alive some team competition in sports, while contests which appealed to individual participants became more popular. Track events were first introduced to the campus in 1875 when a newly formed College Athletic Association promoted an interclass meet. Events which have since become standard — the hammer throw, shot-put, high jump, hurdles, and races —

were intermixed with others now relegated to the picnic or the company outing — three-legged races, sack races and potato races, and blindfolded wheelbarrow contests. But regular track meets were not held for another generation. Other new sports which were taken up with varying degrees of enthusiasm in the fifteen years after 1875 included fencing, boxing, skiing, rifle, canoeing, bicycling, tennis, and football.

Football developed as a collegiate sport in the 1870's and reached the two colleges in Amherst late in the decade. Although the first team at M.A.C. was organized in 1875 by Francis Codman class of 1880, it was not until 1879 that a game was played with another college. "We had no uniforms then and were a hard looking bunch with our old clothes on," wrote one of the players, referring to the contest with the Amherst College freshmen.[17]

In the following year the team appeared in natty new uniforms made possible by subscriptions of faculty and students. White canvas buttoned jackets and white knee pants were colorfully set off with maroon knee socks and jaunty maroon and white stocking caps. Enthusiasm was growing, and the material improving. A fraternity paper, *The Cycle*, demanded subordination of other campus sports — gymnastics and baseball — to the greater glory of football.[18] But the teams did not prosper after 1885, and in the words of a student historian, rivals "that once fell as easy prey to Aggie's prowess now turn the tables and we know how the boot feels on the other foot."[19]

The faculty had become difficult, too, and in 1889 were discouraging the continuation of the sport. Thus at the end of the decade athletics occupied but a minor part of the student's time and energies.

Throughout the succeeding fifteen years, as the student body increased slowly in size, sporadic efforts were made to improve the quality and to some extent the variety of organized athletics on the campus. The student paper, *Aggie Life*, attempted to promote interest in better physical conditioning and increased financial support of sports by the students.[20] Faculty opposition to football appeared to be lessening. Doubtless the campus caught some of the

athletic fever that was generated in nearby Springfield when Hampden Park was becoming a sports center of New England.

The efforts to lift the tone of athletics included, in addition to the student pleas for more players, a concerted attempt to obtain professional coaching and adequate athletic facilities and equipment. The leadership came from the faculty, among whom were to be found several young alumni. Professor Brooks had started the drive for a field in 1892. Successful in gaining the consent of the trustees for the use of college land, and in obtaining from interested alumni pledges of financial support, he, nevertheless, failed in his purpose because there appeared to be no suitable land then owned by the College. One immediate result of his drive was the organization of the M.A.C. Alumni Athletic Association in 1893. This body, directed by faculty and alumni, provided the management of finances for student athletics, and by 1914 had brought the proposal of Professor Brooks to the point at which draining and grading of Alumni Field had begun.[21]

Meanwhile the Athletic Association continued its efforts to strengthen athletic activities. Samuel F. Howard and Ralph E. Smith, both recent graduates appointed to the staff in the nineties, contributed much to systematize the finances. It was an arduous task, for the treasurer reported a fifty-six-dollar deficit at the end of the 1898 football season. The students had paid but sixty percent of the $291 which they had pledged, and the faculty donated thirty-three-dollars and fifty-cents. No danger of overemphasis on professionalism could be drawn from a report that listed ninety-five dollars for coaching, thirty-nine dollars for supplies, and five dollars and fifty cents for training costs.[22] Not until the season of 1899, when Professor Smith succeeded in collecting $400 from alumni, did the Massachusetts team have a coach for the entire football season.[23] Other signs of quickening interest in sports were detected in 1899. Professor Richard S. Lull pleaded for the improvement of the Drill Hall to make it suitable for indoor sports.[24] Basketball, which had been developed in nearby Springfield College, and indoor track were arousing interest among the students. A new seriousness of purpose among the sports-minded students had re-

sulted in the establishing of training tables, while popular acclaim was directed to athletes through the introduction of the lettered sweater as an award.[25]

But successful seasons did not result automatically from this awakened interest, nor did the enthusiasm translate itself into consistent support. By 1901 the baseball and football teams played full seasonal schedules, meeting teams which represented colleges, rather than preparatory schools. Over the next four years M.A.C. achieved her first winning teams in both the major sports. In football, Edward B. Snell and Charles P. Halligan, who came from athletic families, became an outstanding pair of tackles, George E. O'Hearn a brilliant end, and Willard A. Munson a powerful fullback. The *Boston Globe* hailed the 1904 football team as equal to those of Amherst, Williams, and Wesleyan, and cited its Captain Munson as one of the best backs in the small colleges.[26] The baseball teams were less consistent in their play, still handicapped by the lack of an improved field and experienced coaching. The team of 1905, coached by Captain Frank H. Kennedy, proved to be one of the best, winning seven of its sixteen games.

Efforts were made in the 1890's to arouse interest in other forms of competition, but no progress was made in providing the modern facilities which would encourage wider participation and more skillful performance. Hockey, then known as polo, had been introduced when the college pond was constructed in 1892, but the team soon discovered that ice suitable for playing was most uncertain. Indoor track events were held in 1893 and 1895 despite the lack of a modern track. And in the same year M.A.C. met and triumphed over Connecticut Agricultural College in the first recorded intercollegiate outdoor track meet.[27]

The new game of basketball made an uncertain start on the M.A.C. campus in these years. Class teams took up the game in 1899, and a team representing the college in 1900 played with Y.M.C.A. and town teams in the vicinity. The initial intercollegiate basketball game was not held until 1902. The first season, under Captain J. M. Dellea, was a victorious one, but comparable success did not follow. Over the succeeding seven years the varsity team

won its victories over Y.M.C.A. teams, but proved to be no match for most of the college teams which it met. Indifferent success led to the abandonment of the game in 1909. That this unpopularity was not entirely local is attested by a similar action at Harvard University.[28]

All in all, athletics had won acceptance, and moderate success had been achieved in intercollegiate competition. "Who shall say that the ball and bat, the pigskin, the racket and the hockey stick and the track meets do not hold a well deserved place in modern education and thus in the growth of a nation?" queried an undergraduate enthusiast in 1904.[29] And yet it is evident that sports were far from occupying a major position in the interests of the undergraduate, and the editor of The *College Signal* would spend a considerable amount of his space in 1906 in bemoaning the ebb tide of "college spirit."

The raw barracks atmosphere which had hung over the campus in the early years had been largely dispelled by 1905, and undergraduates were more sophisticated. Student dress had improved in taste, and the whiskered cheek was now clear and clean. Deportment too appears to have matured, although the adventurous college student never has been known to divest himself of all irresponsibilities. The M.A.C. student was groping his way toward more successful self-control. Interest in student-directed campus government had developed in the 1890's, with the result that the student senate became a reality in the fall of 1899. Filled with a sense of dedication, this body at first meted out overly severe punishment and then turned to making many regulations which would seem petty to modern youth. Freshmen were ordered to salute their professors and the seniors, and to desist from smoking in public until their class team had defeated the sophomores in an athletic contest. To all, the senate appealed for respectability of appearance at college and public functions.[30] Soon the senate moved to moderate the crudity of hazing and the class rushes. By 1906 the campus talked of the "Book of Judgment," kept in a certain room in South College, wherein undergraduates were requested to sign a pledge to refrain from hazing; in the previous

year the senate had introduced the cane rush as a supposedly milder form of mass struggle.[31] Through the senate the students had also urged the adoption of an honor system as a means of building mutual confidence and respect between professor and student, and as a device for promoting stronger student scholastic efforts.[32] In the spring term of 1898, with faculty approval, the junior class established such a system of self-control in all of its examinations.[33]Gradually, developments such as these produced a sobering effect on the undergraduates. Outbursts, usually indicating defiance of authority, slowly declined. But they did not disappear altogether, for in the middle of February, 1905, the campus was rocked by an incident that led to another student strike. A disturbance in Professor Walker's political science class was referred to the disciplinary committee of the faculty, which meted out a punishment of suspension of three students for one year. Although the senior class apologized to the professor, it later packed up and left for home when the faculty refused to shorten the suspensions. Acting President Brooks persuaded the trustees to reinstate the three students, and the seniors returned in time to complete their studies and graduate. This strike should not be thought of as a demonstration of irresponsibility; rather, it was more nearly an indication of the new feeling of joint responsibility for the regulations of campus life.

The differences apparent in the life of the student body in 1905 compared with those of 1870 were not basic ones, but only matters of degree. The College undergraduate still came to M.A.C. in the hope of opening the way to a better life, a career in a challenging field. If he no longer looked upon agriculture as the prime occupation in his future, it was because the society from which he came had changed. Only one-third of the M.A.C. students in 1905 came from farming families, and another one-fifth from the homes of mechanics. The parents of nearly half were occupied in business and professional tasks.[34] The student himself was still the lively, energetic youth pursuing the opportunity which, except for the state-supported College, would have been closed to him.

7

The Growing College

1906-1916

"Today we stand at the threshold of a new era in agricultural education," proclaimed Kenyon L. Butterfield, the young president from Michigan who succeeded Henry H. Goodell in 1906.[1] The new departure which he envisioned should be a rededication of the land-grant colleges to the ideal of producing strong teachers and productive researchers in the fields of science which applied to agriculture.

The need, as the new president saw it, was for a more effective approach to the problems of New England's agricultural industry. Although he recognized that the superior attractions of rich virgin soil in western states and the many opportunities opening in industrial cities had combined to depress her rural economy, he nevertheless felt that in reality farming never before had offered so much promise. A heavy responsibility for the failure of the rural communities to recognize farming's full potentialities he placed upon the agricultural colleges, which he felt had drifted off the course set by the Morrill Act. The land-grant schools, and Massachusetts in particular, had devoted themselves "too rigorously to the pursuit of theoretical knowledge," an error which had resulted from competing too closely with the "old line colleges."

To the *Springfield Republican* it seemed that "things at M.A.C. would be different under the new president," and the *College Signal* was confident that he aimed at a "larger and better Massachusetts."[2]

The man who had been transplanted from the Midwest at the age of thirty-four was an ardent exponent of that section's driving movement for reform, for agrarian progressiveness. Butterfield came from a family immersed in agriculture, education, and public service. Both his grandfather and his father had been leading farmers in Michigan and active in state affairs relating to this interest. His father, a member and one-time secretary of the State Board of Agriculture, had also been on the staff of the Michigan Agricultural College. The son was active in public relations activities for the farm movement for ten years after his graduation from the Michigan Agricultural College in 1891 before deciding to take up graduate study in preparation for teaching.

Following his decision to enter academic fields, Butterfield had rapidly gained national recognition both as a student of agriculture and as an executive possessed of an original mind and fired with unbounded enthusiasm. Shortly after he had completed his graduate studies at the University of Michigan in 1902, he had been selected to have charge of writing the section on agriculture in the epoch-making economic history which was being edited by Carroll D. Wright for the Carnegie Institute of Washington. About the same time, he was elected president of the Rhode Island College of Agriculture, and, in this new position, soon attracted wider attention among educators. His address in 1904 on "The Social Phase of Agricultural Education," which was read at the convention of the American Association of Agricultural Colleges and Experiment Stations, gained him national recognition and selection as chairman of one of the four standing committees of the Association, that on extension work. In 1905, a trustee of the Massachusetts Agricultural College, William H. Bowker, heard him in Worcester and was "tremendously impressed by this new face on the lecture platform of Massachusetts." A few months later Kenyon Butterfield accepted the presidency of M.A.C.[3]

Although Butterfield had been a professional educator only a few years, he nevertheless brought to the College a well-developed philosophy of agricultural education. His was the approach of the social scientist. Where earlier Massachusetts leaders had stressed the need for science, Butterfield urged the importance of making college training "educative, broadening, cultural — to give instruction in the natural and social sciences so that it will yield that discipline and liberal training that belong to the educated man." The agricultural college, he felt, should stress the needs of man and the understanding of social institutions. Study of economics, civics, and sociology was most important in the effort to raise a new generation of teachers and leaders. Furthermore, he urged the agricultural colleges to extend their training into the rural homes, to reach the adult farmer and his wife. "The attempt to organize proper facilities for the training of women for a full, free life in the country homes of America, has not been seriously made. . . . The agricultural colleges . . . can attempt nothing nobler."[4] Specific needs of the Massachusetts Agricultural College included much larger appropriations by the legislature, the development of extension education, the balancing of this off-campus instruction with the research and teaching programs of the College, and the strengthening of all by the same principle of specialization that had already been developed in science. "The agricultural college which hopes to keep modern will no longer be satisfied with an agricultural and horticultural department made up of three or four men, but will substitute therefor an agricultural faculty made up of one or two dozen men, each man strong in a specialty."[5]

The small and struggling college of 250 undergraduates and a dozen graduate students which Butterfield took over in 1906 was ready for vigorous leadership. Under Goodell it had been rescued from oblivion, developed a strong science faculty, and inaugurated a program to modernize facilities. Appropriations had been obtained for a few of the badly needed buildings, and funds made available for student labor and scholarships. The work of the Experiment Station was established on a sound basis. But to Butterfield it seemed that Massachusetts had fallen well behind the

leading agricultural colleges, which had been advancing at an extremely rapid rate.

The history of Kenyon Butterfield's administration falls into two distinct parts, separated by World War I. His major contributions to college growth and reform were made in the first of these periods. When the call to war took most of his students and many of his staff from the campus, the president, like the Chief Executive of the United States, could take some comfort in the knowledge that most of his reforms had been effected.

Butterfield's basic gain for M.A.C. was vastly improved financial support, derived from both state and federal governments. The College, which operated on a budget of $149,389 in 1906, enjoyed the sum of $657,679 ten years later. State appropriations for current operations of the College and the Experiment Station in the former year had been $53,000; in 1916 this figure had grown to $281,000, not counting an additional $50,000 for the newly established extension service. The president had won support in the legislature by his crusade for better agricultural education. Careful planning and clear, bold presentation of need had drawn gratifying response. The Federal government during these years enacted various measures as a result of which it provided the College with nearly $85,000 in 1916, as against $35,000 in 1906.[6] The president rode the crest of the progressive wave, steering Massachusetts Agricultural College into a new era in its growth.

One of the most striking developments under the new leader was the reorganization of the college administration. Presidents such as Clark and Goodell had directed their staffs with an easy informality that obviated the need for a larger staff of officials. At the start, the Board of Trustees had filled the offices of secretary, treasurer, and auditor with members of the Board. All other duties fell upon the president. A slow expansion of administrative staff had begun in the 1880's when a member of the faculty had been selected as bursar to manage transactions for the treasurer, who was not yet established in a campus office. In the 1890's the duties of the treasurer's office had been transferred to the faculty, and Professor George F. Mills undertook them. The appointment

of a librarian and the designation of Professor Richard S. Lull as registrar in 1900 established the rudimentary administrative body of Goodell's college.

Kenyon Butterfield, desiring action and growth, moved quickly to provide the needed administrative organization and delegate to it the necessary authority. New faces appeared in three key positions, while two new important posts were established. To the office of the treasurer the new president brought Fred C. Kenney, a trained accountant with twelve years of experience as cashier at Michigan Agricultural College. In a move aimed at greater efficiency, all of the business affairs of the College were now handed over to this full-time officer. Professor Mills, who had served fifteen years as treasurer, was selected to become the first dean of the College. Other changes saw Ralph J. Watts, a graduate of 1907, made secretary to the president, and Charles R. Green become the librarian after serving for seven years in the Connecticut State Library, at Hartford.[7] In 1907 the resignation of Dr. Charles A. Goessmann brought to an end a distinguished career of teaching and research which extended to nearly forty years. His post as director of the Experiment Station was filled by Professor William P. Brooks, who had served the College as the professor of agriculture since his return from Japan in 1889. His new responsibilities were to draw him away from all teaching except for one course in soil fertility, his specialty. A second new position, in addition to that of dean, which was created to give impetus to the expanding work of the College, was that of director of the graduate school. Professor Charles H. Fernald, veteran entomologist, filled this post until his retirement in 1910. He was succeeded in 1912 by Professor Charles E. Marshall, who already had gained recognition at Michigan Agriculture College as one of the country's leading microbiologists. This group, together with Professor Philip B. Hasbrouck, registrar after the resignation of Lull in 1905, was to guide the growth of the College in the important decade preceding World War I.

A second major task which Butterfield accomplished was the organization of the faculty into divisions. For several years there

had been rumblings of discontent caused, in part, by the uncertainties of the administrative policies and by frequent changes of the curriculum.[8] By 1911 the president completed the new system which was formally adopted by the trustees in that year.[9] The activities of the college staff — teaching, research, and the newly established extension work — were to be administered in departmental units, and the twenty-three departments grouped into divisions having common interests. The chain of responsibility was completed by the recognition of the group of division heads as a cabinet which would meet regularly with the president to advise on college policy. Leaders who were new to the Massachusetts campus predominated in Butterfield's first cabinet. James B. Paige, head of the science division, was the veteran of the group. Frank A. Waugh, who had succeeded Samuel Maynard in horticulture and landscape gardening in 1902, led the five departments in his field. Leadership of the teaching in the important field of agriculture was entrusted to a young professor, James A. Foord, who had joined the staff in 1907 after receiving his training at Cornell and teaching at the University of Delaware and Ohio State University. The underdeveloped division of humanities, which was made up primarily of the rapidly growing department of languages and literature — English, French, Spanish, and German — was directed by Professor Robert J. Sprague, a sociologist trained at Boston University and Harvard, who had wide experience in teaching and who had also studied in European countries. The fifth division, an area entirely new to M.A.C., was that of rural social science, which was created and directed by the president himself to encompass the fields of agricultural economics, education, and rural sociology. The master plan for the faculty was drawn; there remained the tasks of staffing, replacing where retirements created vacancies, adding new specialties to existing departments, and, in some cases, creating departments where none had previously existed.

The division of agriculture was one of the first to be transformed in the new system. From a department whose work in 1906 was carried on by two men, Professor Brooks and Assistant

Professor Fred Cooley, the agricultural program was expanded in ten years to one which was conducted by nineteen men in six different departments. True to his promise, Butterfield had introduced the day of specialization. The work offered in the former department of agriculture was now divided into four departments and expanded by the addition of advanced courses. Professor Foord built a strong program in farm management, while Sidney B. Haskell, a graduate of M.A.C. in 1904, added to the work in agronomy. The department of dairy science developed under Professor William Lockwood, as did that for animal husbandry under Ray L. Gribben and later under Associate Professor John A. McLean.

But fragmentation into specialties was not of most importance in this building process: at an early date the president had called for new areas of instruction which had been overlooked at Massachusetts.[10] Two such areas were added to the division of agriculture by the creation of the department of poultry science in 1911 and that of rural engineering in 1916. To the former came John C. Graham, who, after teaching high school in Wisconsin, had recently completed his college training at its University. To rural engineering came Christian Gunness, who took up the task of developing courses in machinery and structures at a time when technology was rendering obsolete much of the equipment to be found on New England farms. Had the student who had graduated in 1906 with a major concentration in agriculture returned in 1916 to repeat his college experience, he would have found that instead of having the choice of one or two specialized courses in each of his last two years, he could choose among five different major programs, with a dozen courses in each specialty.[11]

The growth of the division of horticulture was even more revolutionary. In 1906 the entire program in this field rested with one professor, Frank A. Waugh, and three instructors, and consisted mainly of landscape gardening, with basic work in the production of flowers, vegetables, and fruits. Ten years later this division had been built by Waugh into a group of five departments, each offering a complete program of specialized instruction. Fred C. Sears had

been drawn from Nova Scotia to establish a program in pomology, while Edward A. White took charge in floriculture, and Frank F. Moon offered the first courses in forestry in 1910. Two years later, Moon, who had resigned, was replaced by William D. Clark, a graduate of the Yale School of Forestry. One of the most significant developments of the work in horticulture was to result from the establishment of off-campus research centers in eastern Massachusetts. From 1890 the college entomologists had become increasingly concerned with the problems of raising and marketing cranberries. The importance of this crop to Massachusetts necessitated expanded efforts, and in 1910 an experiment station was established for the purpose at Wareham. Henry J. Franklin, who had done graduate work and some teaching at the College, became the first director of this important enterprise. Soon the Boston Market Garden Association would call upon the College for similar service in the field of its interests. In 1916 the second station was initiated, in East Lexington. Harold F. Thompson, a recent graduate of the College with a few years of study and teaching experience, became the director of the research and market-gardening program.[12]

Instruction in the natural sciences had been carefully developed before 1905. Therefore, the new division in this area of the staff, which was under the leadership of Professor James B. Paige, was both the largest and the strongest. Seven well-established departments were supplemented in 1912 by still another, that of microbiology, headed by Dr. Charles E. Marshall, graduate director. In the following year, a young scientist, F. H. Hesselink van Suchtelen, who had received his doctoral training from the University of Göttingen, was appointed, giving the new department a second scientist of high rank. Among the older science departments, retirement of elder professors and increasing specialization of research and teaching brought about significant changes between 1906 and 1916. Chemistry lost Goessmann in 1907, the last of the "faculty of four," and Samuel Howard, who resigned in 1912. But in Charles Wellington and Joseph B. Lindsey the department had two stalwart pupils of Goessmann to maintain its strength. Under

Lindsey, chairman after 1911, there were added three young and well-trained scientists. Professor Joseph S. Chamberlain, who had wide training, research, and teaching experience at Iowa State College of Agriculture, Johns Hopkins University, and in the United States Department of Agriculture, took up the work in agricultural chemistry in 1909. Two years later Charles A. Peters, a graduate in 1897 who then trained at Yale and in Germany, returned from teaching in Idaho to take up work in inorganic and soil chemistry at his alma mater. Ernest A. Anderson, whose Ph.D. was completed at the University of Chicago, joined the department in 1912.

In the other science departments retiring veterans were succeeded by well-trained replacements, but expansion was less noticeable. The retirement of George E. Stone, professor of botany, in 1914 elevated A. Vincent Osmun to the chairmanship and continued the succession of botanists trained at M.A.C. Soon Paul J. Anderson and Orton L. Clark were added to develop the fields of plant pathology and plant physiology. In zoology, transition was more gradual. When Richard S. Lull resigned to move to Yale in 1906, he had been succeeded by Charles E. Gordon, a graduate of M.A.C. in 1901. Lull had been a popular figure on the campus; students knew him both as a stimulating teacher and an active and sympathetic member of the faculty. His research in paleontology, especially in relation to the dinosaurs, had attracted wide attention.[13] Gordon had been a prominent member of his undergraduate class and had taken his graduate training at Columbia University. Following his return to the campus, he became a leading scientist, teaching zoology and his specialty, geology. In 1910 this department also lost through retirement the services of Charles H. Fernald, but gained Guy C. Crampton and Burton N. Gates. The former, a Princeton graduate who had trained at Cornell, specialized in insect morphology, and the latter developed instruction in beekeeping. In veterinary science Professor Paige carried on singlehanded until 1911, when George S. Gage was hired from the University of Maryland to develop research and instruction in animal pathology. The two departments which underwent the least

change in these years were those of mathematics and physics. Here the two veterans, Ostrander and Hasbrouck, carried on. Hundreds of students recall vividly their experiences in the classrooms of these two colorful and devoted teachers. Such expansion as took place in these teaching departments came by the addition of young instructors. One who started in 1911 a career which was to be long and fruitful was William L. Machmer.

In his 1906 inaugural address President Butterfield had pleaded for a broad, well-balanced program of agricultural education — "so broad, with such intimate relations to all the natural and social sciences . . . it will yield that discipline and liberal training that belong to the educated man."[14] Not only did he call for the teaching of agriculture as a vocational training in which the truths of natural science were clearly brought to bear, but envisioned the time "when students will choose the agricultural course because it forms for them the best foundation for a lifework even though they may not follow rural pursuits." The ideal educational program should reach all rural people and should touch on every subject which might interest them. "The time has come when the farm problem is not only a question of scientific agriculture, but also even more a question of economics, sociology, civics." And, he added, "The farm home is to be fully considered in schemes of agricultural education."[15]

In the execution of his concept the new president was only partially successful, and the perspective of hindsight tells us that he overlooked the need for sound expansion in certain areas. For Kenyon Butterfield's enthusiasm for things rural had partially blinded him to the realities of the industrial and urban society which was rising rapidly in Massachusetts. Although he envisioned a well-balanced curriculum that would yield a liberal education to every student, his insistence that Massachusetts Agricultural College should hew closely to the line of preparation for country life, avoiding temptation to imitate the "old line" colleges or the land-grant universities, set back the growth of the arts and social sciences for a generation.[16]

Butterfield's approach to the development of the College in the arts and social sciences was to organize two divisions, one of the humanities, the other rural social sciences. The creation of two small units in place of a single stronger division probably weakened both, and certainly contributed to the postponement of development of departments in the general social sciences. The division of humanities included the large and growing department of languages and literature — English, French, German and Spanish — together with two newly established one-man departments, each of which included the subject matter of two disciplines. The department of economics and sociology, under Robert J. Sprague, who had been hired from the University of Maine in 1911, offered three or four semester courses in each of these fields. The second new department, that of history and government, was equally limited. George H. Holcomb presented two courses in history — the history of New England and the history of ideals, while introductions to American national and local governments were offered by Professor Elmer K. Eyerly, whose services were borrowed from the president's division of rural social science. Leadership of this unbalanced division had originally been entrusted to Dean George F. Mills, but had passed to Robert Sprague when the former's health began to fail.

The philosophy of rural education to which Kenyon Butterfield was so thoroughly dedicated led him to put most of the emphasis for new developments on the division of rural social science, which he personally directed. Three departments, each having at least two members, were created to constitute this division — agricultural education, agricultural economics, and rural sociology. To the training of teachers for the agricultural high schools, and agents for the county extension work, Kenyon Butterfield was thoroughly committed. Within a few weeks after his appointment as president, the Massachusetts legislature had made possible the start of such work at M.A.C. by appropriating $5,000 to establish a "normal department" — if it could be done for at least the sum appropriated and fifteen students should present themselves.[17] Soon the College hired from the Nebraska State Normal School Professor William

R. Hart to establish this new department, and presently he was offering courses in educational psychology, school problems, and extension work. In 1911 Associate Professor Orion A. Morton was appointed to take over the training of leaders for both senior and junior extension activities. Hart, who continued his work on the campus for the next sixteen years, became a major campus figure and developed for M.A.C. a function of which Theodore Sedgwick had dreamed nearly one hundred years before. Murray Lincoln, a graduate of the class of 1914 and one of America's contemporary leaders, credits "Pop" Hart with exercising a greater influence upon him than did any other teacher.[18]

The development of agricultural economics at M.A.C. was entrusted to Alexander E. Cance, who had received his training under Henry C. Taylor at the University of Wisconsin. The pattern of organization at Amherst resembled that of Wisconsin in separating agricultural economics from the program of general political economy, but differed from Wisconsin's pattern in treating the subject as an independent social science instead of an adjunct of farm management.[19] Cance, who rose rapidly to the position of professor, established courses in the history of agriculture, marketing, transportation, and the cooperative movement. By 1916 the basic course had been made a requirement of all sophomore students, and a seminar in problems of New England agriculture was available for seniors and graduate students.

The third area in the new division was that of rural sociology, Butterfield's own specialty. In his course the student studied the "ways by which the domestic, economic, cultural, religious and political institutions contribute to rural betterment."[20] Other courses in rural social life and government were taught for a time by Elmer K. Eyerly, and after 1914 by John Phelan. Eyerly, who had studied at Yale and the Universities of Berlin and Chicago, had been selected for the history-government section of the humanities division, but found most of the time diverted to rural subjects. Professor Phelan was a rural educator who had trained for teaching at Western Michigan University and taught in Michigan normal

schools. Once again the president had turned to his native state for assistance in a major new development for Massachusetts.

Although the creation of the division of rural social science had postponed the expansion of a portion of the division of humanities, it did not interfere seriously with the development of instruction in the largest department. Under the leadership of Dean Mills the work in English language and literature experienced very important growth. Robert W. Neal, who held a master's degree from Harvard, was appointed in 1906 and developed a vocational program of courses in journalism. Soon public speaking and debating were revived and enlarged through the efforts of Frederick B. McKay. And, beginning in 1911, the department added rapidly to its staff and its list of specialized courses in English literature. When Mills retired in 1914, there were some fifteen advanced courses in the English and American writers, the short story, and drama. To the department had come Edward M. Lewis, with ten years of teaching at Columbia University and Williams College, Walter E. Prince from Brown University, Frank Prentice Rand, a Williams graduate, and Miss Helena Goessmann. In 1916 Charles H. Patterson joined the department after studying at the University of Chicago and engaging in teaching and administrative work at various academies and West Virginia University. In the addition of specialists, and in the depth of its work, this department had followed the pattern of the larger groups in the sciences.

In other respects, however, the humanities division made scanty progress during Butterfield's first years. Instruction in the foreign languages had in the past been limited to the capacity of one instructor, who taught both elementary French and German. The beginnings of improvement came in 1908 with the appointment of two young men, A. Anderson Mackimmie and Edgar L. Ashley. Graduates of Princeton and Brown Universities respectively, both men had traveled and studied in Europe. Both were to have long terms of service at M.A.C., and under them the study of foreign literature was instituted. Ashley also inaugurated a course in the history and interpretation of music, in an effort to add additional breadth to the humanities program.

The College, which in 1906 lagged badly, had made significant progress in ten years. The student body had more than doubled and the staff numbered over seventy. Well-trained specialists had been acquired who offered advanced courses, while new and important areas had been developed in agriculture and horticulture, science, and rural social work. But M.A.C. continued to lag in 1916 in two phases of education in which it might well have gone ahead — in the liberal arts and in education for women. This was still a man's college, for only two young women graduated with the one hundred men in June, 1916. And, despite the hopes of Robert Sprague that his division of humanities might be permitted to aim at "culture in the broadest sense" and break away from the vocational channels, this was not to be. For another four decades the few men who were teaching in this division would continue to be the "nomads of the campus, drifting from building to building and adapting themselves as well as possible to the temporary conditions over which they have little control."[21] Kenyon Butterfield wanted no state college in Amherst, much less the university that the American Federation of Labor was demanding.

If Butterfield was not persuaded that the agricultural college in Massachusetts should give greater attention to the needs of the state's urban population, he was thoroughly dedicated to keeping it in the van of the progress among the agricultural colleges in the land-grant group. He had brought to New England a deep interest in the organization of rural groups and in the improvement of the lives and work of farmers by providing them up-to-date information on many subjects. Progressing from rural journalism to an active role in the farmers' institutes in Michigan and thence to leadership of the Rhode Island College of Agriculture, he had formulated a positive philosophy for the modernization of higher agricultural education. "An agricultural college has three distinct functions to perform, each of which is of equal importance to the others," he wrote in his first report at M.A.C. The first was research, which he felt was the sole business of the Experiment Station; the second, instruction to resident students; and the third, hitherto performed only informally, carrying "the information and

the inspiration which are supposed to abide in the atmosphere of the experiment station and the classroom" out to the people.[22] The time was at hand for the establishment of a division of extension teaching.

The idea of disseminating agricultural education to an audience larger than a college student body was older in the United States than the idea of the agricultural college itself, but the movement to establish the machinery for this purpose as a definite branch of the agricultural college had developed only by devious paths. Stimulation of interest in improved farming had been the function of the county agricultural societies. At an early date state funds had been appropriated to aid in the task. In Massachusetts this support had been devoted almost entirely to the provision of prize awards for the annual society fairs.

When the state governments turned to establishing boards of agriculture in the 1850's, one of the functions entrusted them was disseminating information. In Massachusetts this took the form of the annual report of the activities of the board and the societies which were receiving subsidies. In 1863 the Board inaugurated the practice of holding an open meeting of three days at which lectures and discussions of current practices were presented. It will be recalled that a warm interest in the affairs of the societies and the State Board was taken by a number of academicians, and that in Massachusetts the names of Hitchcock, Clark, and Chadbourne occupied a prominent place in the annals of these activities. In Connecticut Professor S. W. Johnson of Yale University helped greatly in arousing interest in agricultural chemistry. And his successor, John Addison Porter, broke new ground in organizing a series of lectures and discussions on agricultural methods which extended over four weeks and brought together college lecturers, outstanding practical men who had established nationwide reputations, and farmers of all ages.

In the era of economic revolution which followed the Civil War, the farm problem came to occupy the attention of many of the country's leaders. Increasing demands for scientific knowledge led to the expansion not only of the land-grant colleges, but also of the

various other means for the dissemination of modern ideas. "Book farming" was less and less spoken of with a tone of disdain as the farming populace turned to education in search of solutions to its problems. The Grange in the 1870's and the farmers' alliances in the 1880's pursued their practical objectives and organized their marketing cooperatives; they also, however, gave major attention to the social needs of rural America. The meetings, picnics, fairs, and conferences, offering welcome escape from the drudgery of the farm, offered also an opportunity to gain valuable information. Out of this new concern for adult education would come the agricultural extension service. Like the Experiment Station, this branch of agricultural education would be fostered by state and federal governments jointly, and find its center of operations in the land-grant colleges.

Extension work developed in a combination of centrifugal and centripetal forces. In its broadest sense "extension" encompassed all activities in which the college participated which were outside of the degree program of instruction. Many of these brought interested persons to the campus for educational meetings, which extended from one day to ten weeks, while others involved services which were performed in other communities by members of the college staff. Massachusetts Agricultural College was engaged in both forms of educational work before it organized an extension service in 1909, and for ten years after that date continued both without distinction as to type.

From the earliest days many of the staff had played an active role in the meetings of the county agricultural societies and of the State Board of Agriculture. Public lectures and demonstrations of new techniques in agriculture increased after 1870 as the farmers institute movement grew. Because this activity was directed in the Commonwealth by the State Board, the agricultural college did not develop an extension service as did the colleges in a few of the western states. From the beginning, however, the facilities of the campus had been used as a demonstration laboratory and for instruction to special groups in the practical aspects of farming. Short courses had been initiated by the College in the 1870's and for a

brief time in the 1890's a program of two years' duration had been offered. By 1908 one of these winter programs, the dairy school, led directly to the inauguration of a campus-directed program of agricultural club work with boys and girls. This junior extension work, the first organized extension service in which M.A.C. participated, evolved out of this campus forerunner.[23]

In the meantime the movement for a broad program of extension teaching had been making headway among the land-grant colleges of the United States.

In 1890 the American Society for University Extension Teaching had been organized, and the following year New York became the first state to appropriate funds for this purpose. Rutgers University, in New Jersey, established the initial extension program in the teaching of agriculture at the same time and was soon followed by Pennsylvania State College and Cornell University. At the meeting of the American Association of Farmers Institute Workers held in Columbus, Ohio, in 1897, the director for Michigan, Kenyon L. Butterfield, had urged the need for federal aid to the land-grant colleges for extension work.[24] Massachusetts was marking time throughout the first fifteen years of this activity. But in 1906 it fell in step with some twenty other states in making use of traveling exhibits of its work. Participating jointly with the agricultural colleges in Vermont and New Hampshire, it promoted a "Better Farming Special Train," after the example set by Iowa in 1904. Under the leadership of Acting President Brooks, exhibits were set up and lecturers recruited to speak on some of the latest ideas in farming, on a tour which included many towns in the other states.[25]

The election of Kenyon L. Butterfield brought to Amherst an enthusiastic believer in the power of education for the purposes of rural improvement. In Amherst he lost no time in calling for action. "The College lives not merely because it teaches students," he proclaimed in his first annual report; "it lives permanently only as it clasps hands with the farmer himself."[26] Massachusetts should establish an extension division for this purpose, and, at the same time, increase its campus services by adding more short winter

courses and initiating a summer school. The program which he envisaged required the appointment of a director and several staff members. Provision for this was included in his request of that year for an increase of $200,000 in the annual budget.

The initial steps in the implementation of the president's program came as a result of the establishment of the department of agricultural education rather than of an extension service. Following the appointment of Professor William R. Hart, two new services emerged: the summer school in 1907, and the first agricultural clubs for boys and girls in Hampshire County in 1908. Both were directly related to agricultural instruction in the public schools. In the latter year a part of the summer school was devoted to a special course to interest clergymen in rural affairs. This was probably the first attempt of its kind to be made in the United States.[27]

In 1909 the legislature of Massachusetts responded favorably to the president's request, and the service was inaugurated with a budget of $7,500 and a director, William D. Hurd. The officer whom Butterfield had selected to build the extension service was ideally qualified for the task, for he, too, was a product of Michigan's agricultural movement, one who had preceded the president to New England by a few years. Following his graduation from the Agricultural College, Hurd had taught briefly in Lansing and later at Briarcliff Manor, in New York. From there he had moved to the Rhode Island State Agricultural College to direct its early extension work, and thence to the University of Maine, where he became dean of agriculture.[28] This young enthusiast for rural improvement, supported by the president, whose ardor now had drawn strength from service on President Theodore Roosevelt's Country Life Commission, soon gave to M.A.C. a full-fledged extension division.

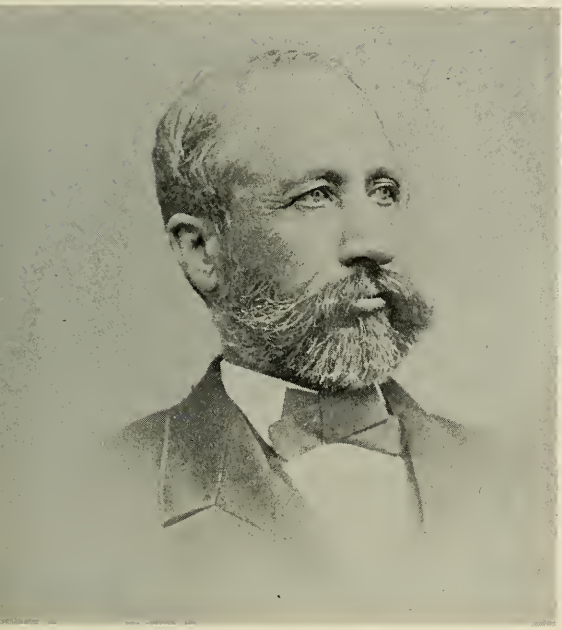
The new service included all campus functions that were not a part of the degree curriculum, as well as those which were performed off the campus; in many cases there was little or no difference in the purpose or nature of the program. To the existing list of winter courses there were added new ones in poultry, beekeeping, and fruit packing, while the summer school was broadened

Henry Flagg French,
first president,
served from 1864 to 1866.
He was father of
sculptor Daniel Chester French.

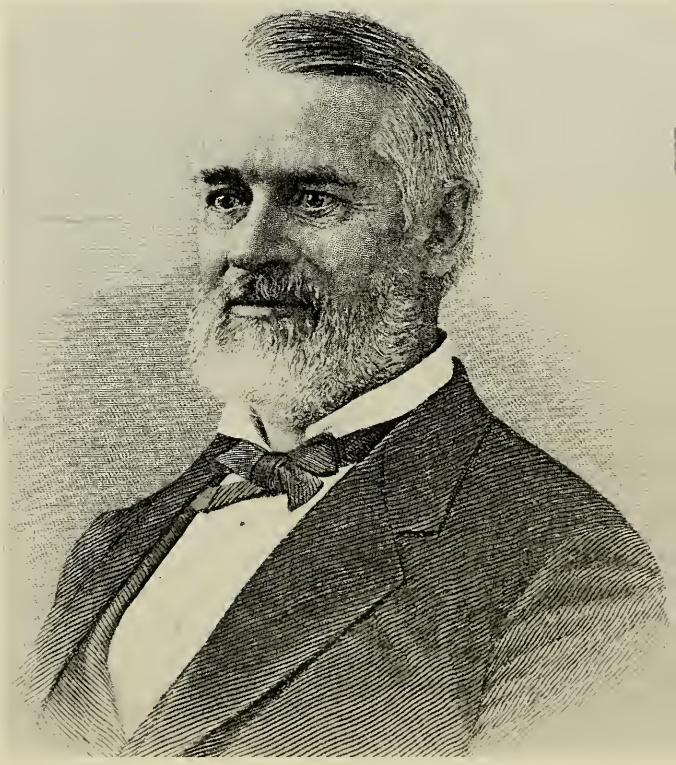
Paul Ansel Chadbourne
was chief executive in 1866-67
and again in 1882-83,
thus serving as both second
and sixth president.

The campus in 1880.
Compare this view with picture on last page of this section.

Professor Levi Stockbridge wields a shovel while conducting class in 1878.



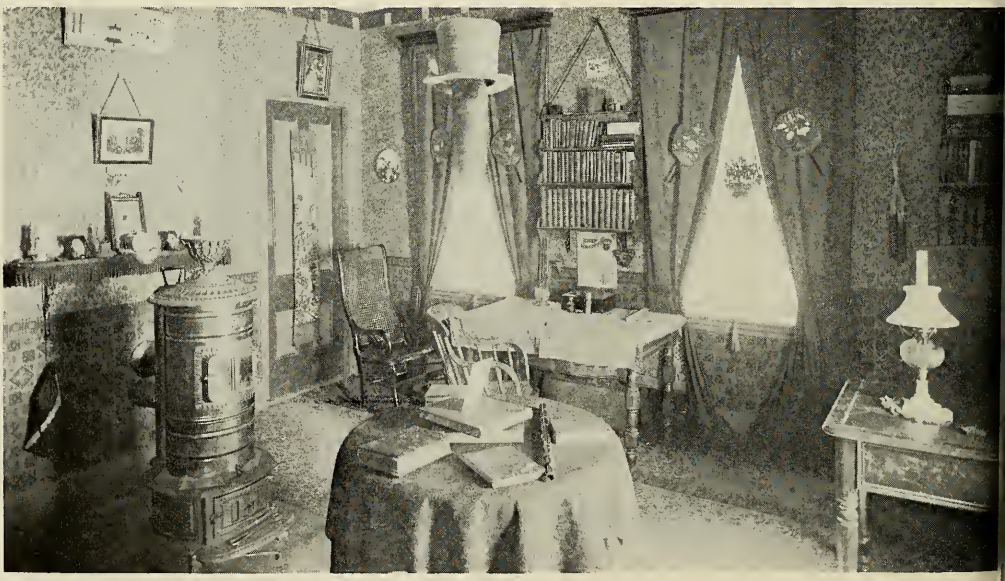
William Smith Clark,
third president,
served from 1867 to 1879.
A pioneer in international cooperation,
he was guiding force in founding of
Hokkaido Imperial University
in Japan.

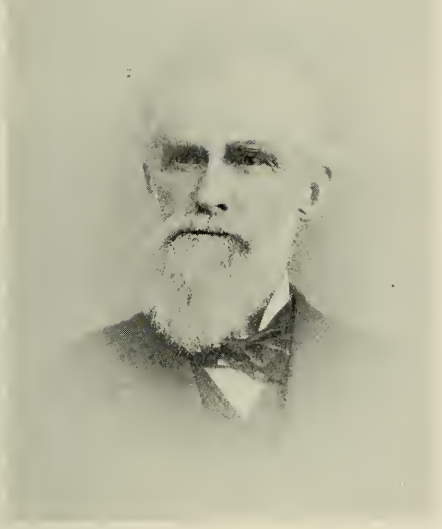


Charles L. Flint,
fourth president,
led M. A. C. in 1879-80.

The campus as it looked in late 19th century.

Student room in South College, circa 1880.





Levi Stockbridge,
fifth president,
held office from 1880 to 1882.

James Carruthers Greenough
was seventh president,
from 1883 to 1886,
succeeding Chadbourne
who served his second term
in 1882-83.

Henry Hill Goodell,
as eighth president,
had long tenure — from 1886 to 1905.

The M. A. C. football team —
stalwarts of the season of 1886.
This was team's first formal uniform.

Kenyon L. Butterfield,
ninth president,
was vigorous leader
who held office from 1906 to 1924.

Coeds of 1915
engage in genteel sport
on lawn below South College.

R. O. T. C. unit lined up in grim World War I period.

Mounted drill in the 1920's.

Memorial Hall, built as monument to the college's war dead, is dedicated in solemn ceremony on June 12, 1921.

Class in bacteriology,
circa 1925.

Rallying for M. A. C. —
scene from late 1920's.

Shakespeare's Macbeth —
a featured Roister Doister offering
in the year 1929.

Edward M. Lewis, tenth president, had three-year tenure, from 1924 to 1927

Roscoe W. Thatcher, eleventh president, led the College from 1927 to 1933.

Alumni parade in the early 1930's.

Hugh Potter Baker, twelfth president, held office for almost entire period institution was called Massachusetts State College. He served from 1933 to 1947.

The campus in the early 1930's.

May 6, 1947 — Governor Robert Bradford signs legislation creating the University of Massachusetts. Looking on (l. to r.) are President Baker, Senator Ralph C. Mahar, (unidentified), Alden C. Brett '12, Representative Margaret L. Spear, Representative Ralph W. Sullivan, and Dennis M. Crowley '29.

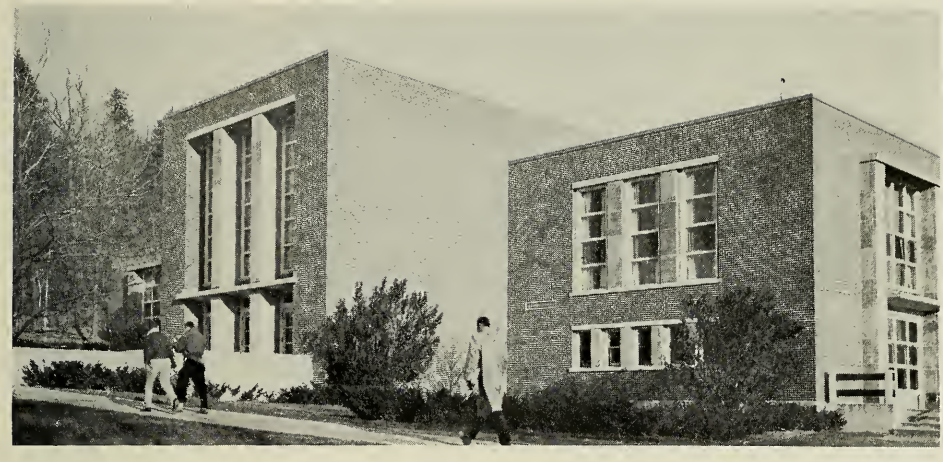
Ralph A. Van Meter, thirteenth president, built strong foundation for new University during his seven-year tenure. He held office from 1947 to 1954.

Links between present and past — Old Chapel. . .

and Goodell Library.

Fourteenth president,
Jean Paul Mather,
worked vigorously to expand campus
and to maintain strong faculty.
He held office from 1954 to 1960.

Machmer Hall, named in honor
of long-time dean William L. Machmer.



Modern facade of
University Dining Commons.

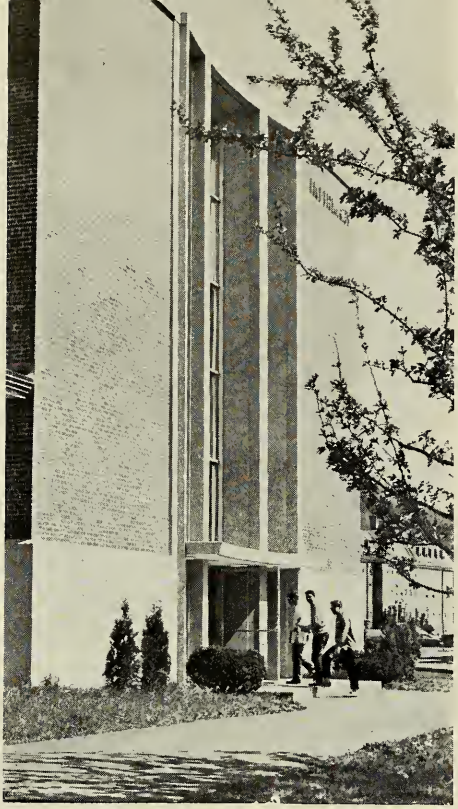
Women's dormitories reflect beauty
of one of America's most attractive campuses.

The Student Union, center of social and extracurricular activities, was opened in 1957.

Autumnal scene on campus.

John W. Lederle, fifteenth president, leads the University during its centennial era. He took office in 1960.

The Justin Morrill Science Center — three of its four sections complete in 1962.

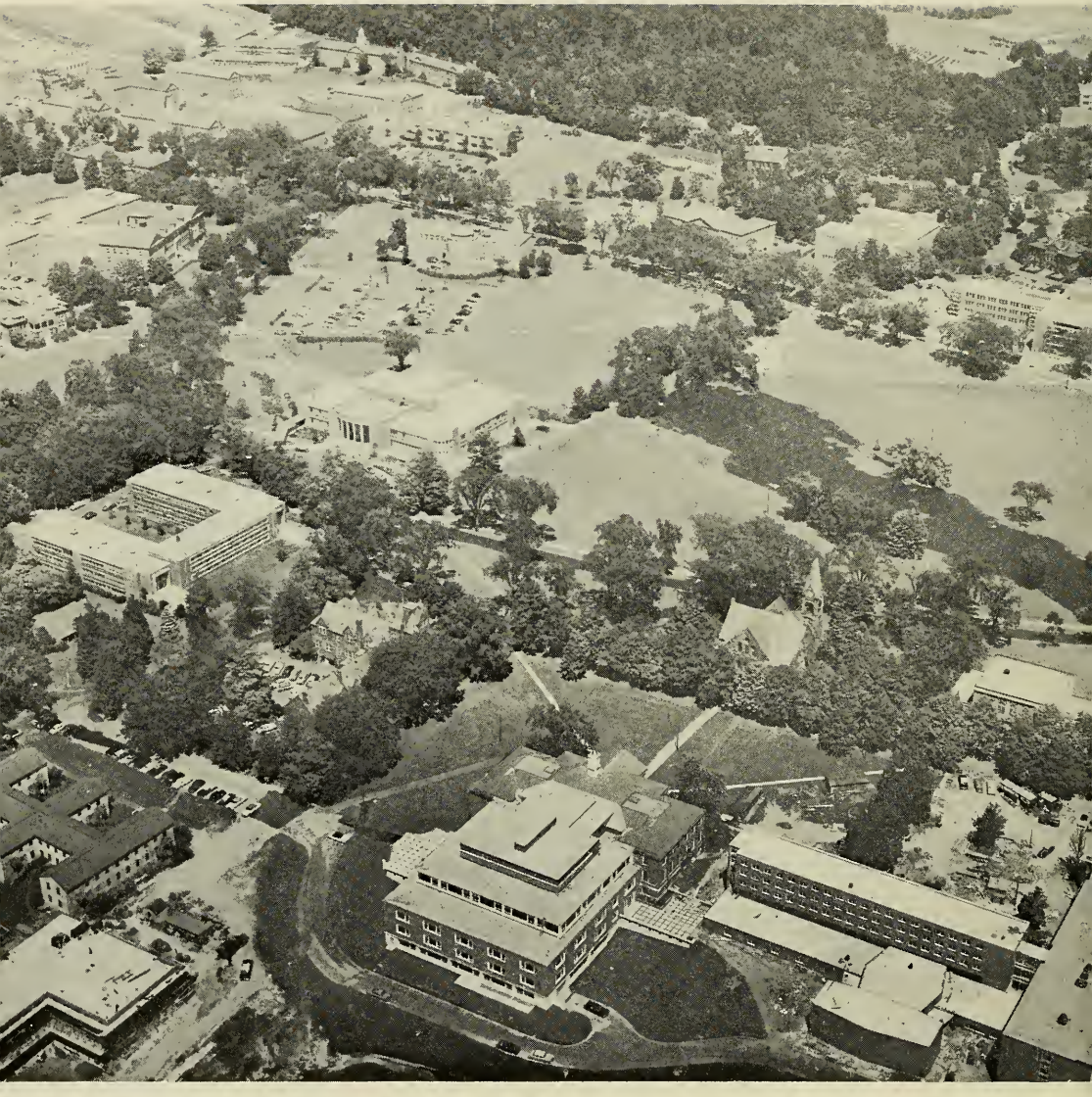


The new University Infirmary, housing one of the country's finest collegiate health services.

Metawampe, chief of Amherst's old Norwottuck tribe, continues to watch over his domain during a University commencement in the 1960's.

On the site of the old Drill Hall stands today's Bartlett Hall, forming a large central quadrangle with Goodell Library, the Chapel, and South College.

July 11, 1962 — Governor John A. Volpe signs measure granting greater fiscal authority to University's trustees. Standing, left to right, Senate President John E. Powers, House Speaker John F. Thompson, Senator Maurice A. Donahue, President Lederle, and Frank L. Boyden, Board Chairman.



The modern campus. . .

to include subjects of interest to agriculturalists as teachers. New conferences touching upon a wide variety of subjects were organized. Thus in 1909 there took place the first "Farmers' Week" program, which was to become a popular one for many years. Attention was given to the problems of home economics as well as to those of the farm.[29] To conferences for agricultural educators and rural social workers came leaders from all sections of the United States.

The conference habit was rapidly growing on this campus, and included such interesting experiments as that of a Polish Farmers' Day, which was held for the first time in 1911. New departures in off-campus work included correspondence courses, extension schools, and variations in demonstration techniques, some using private farms and orchards in various places throughout the state.

In 1911 the services initiated a series of bulletins which usually related to farming problems, but also included topics of more general interest, such as civic improvement and readings in English fiction.[30] At the same time a small circulating library was established on the campus.[31]

Of major significance, however, was the development of the staff of extension experts who would carry the results of research to the rural communities by lecture and demonstration. Massachusetts, having in President Butterfield a national leader in the movement for broader rural education, was one of the earliest states to develop a system of county demonstration agents. In the cotton-growing states such agents had appeared first in connection with efforts of the farm bureaus in 1903 to combat the boll weevil. By 1911 the northern states of Pennsylvania and New York had adopted the idea for offering scientific assistance to their farmers.[32]

Massachusetts, too, was to organize in 1911 a system of county agents who would help to integrate the work of the agricultural college and that of the farm bureaus. The initial step had come in 1909 when Charles H. White, a graduate of M.A.C. in that year, was appointed as a special field agent, the first such officer of the College. In the first year his work was confined largely to the campus, assisting Professor Hurd with short-course instruction. He

had limited field work at the outset, visiting some of the high schools in connection with the work of student deputation teams which were organized to assist with Sunday schools, Christian Endeavor societies, athletic teams, and other groups.[33] But a larger function was soon to come, for the College seized the initiative in promoting more thorough organization of rural leaders interested in reform. The start had been made with the inauguration in 1910 of a summer school for teachers of agriculture and the inclusion of a program for clergymen in the study of economic and social problems of country life.[34] A major step followed in September with the assembling on the campus of a conference of representatives of more divergent interests in rural life. Out of this emerged the M.A.C. Agricultural Improvement Association, which was organized during Farmers' Week in the following May by graduates of the College. The officers of this new association were H. R. Carter of Millbury, president; P. E. Davis of Granby, vice-president; Charles H. White of Amherst, secretary; and H. A. Parsons of North Amherst, treasurer. This body, the creation of which owed much to the drive of Charles H. White, established a state-wide system of agents, one for each county, through whom much of the extension work of the College would operate.

The College leaders envisaged other organizations, some of which became realities. In August, 1911, a Rural Social Service Association was established, and a year and one-half later President Butterfield advanced a comprehensive plan for a Massachusetts Federation for Rural Progress. All agencies, bureaus, and organizations — public and private — touching upon rural life should coordinate their efforts; he urged the trustees of the College to initiate the call.[35] At the same time he suggested the creation of a State Commission on Agricultural Education and Organization.

The dream of Butterfield was not to be realized in its fullest in Massachusetts, but organization did proceed on a local basis. The trustees in January, 1913, authorized the organization of the Massachusetts Federation for Rural Progress. It was established in the fall of 1913, including some twenty-five agencies in its mem-

bership. A series of conferences was held, but no permanent structure was created.

The legislature failed to provide for the state commission which Butterfield had recommended, but a voluntary committee emerged under the name of the Massachusetts Agricultural Development Committee. President Butterfield and Professors Cance and Morgan served on this committee, which also included the state forester and representatives of the State Board of Education, county agricultural schools, the Grange, and the farm bureaus.[36]

It was in conjunction with this movement for coordinating the agricultural organizations of the state that the M.A.C. Extension Service reached its maturity. In 1912 the Massachusetts legislature responded generously to the pleas of President Butterfield, raising the annual budget for the extension service to $50,000. In 1914 further aid of $11,405 was made available by the national government through the Smith-Lever Act. As a result the small staff at Amherst was doubled in number. Appointed were Miss Laura Comstock as extension professor of home economics, Orion A. Morton as extension professor of agricultural education, Ezra L. Morgan as community field agent, and Herbert J. Baker as field agent in farm management. There were, in addition, instructors in dairying and animal husbandry, pomology, and civic improvement, together with a supervisor of correspondence courses and a demonstrator whose display truck had replaced the farming trains of earlier years. By 1916 the staff had achieved permanent form, and its activities had broadened into a full-fledged program. Extension professors were active in the fields of rural organization, community planning, home economics, and agricultural economics. There were eight additional instructors, each responsible for work in a specialized area of agriculture or home economics. Sumner R. Parker had been appointed as leader of county agents, while George L. Farley had begun what was to be a long and notable service as supervisor of extension work with the boys and girls of Massachusetts.

Thus, at the end of his tenth year as president, Kenyon L. Butterfield could take satisfaction in the development of this third

arm of the College and in knowing the policy no longer was that of "shutting up the College for the benefit of a few students, and damming up the great fountains of agricultural knowledge, permitting them to trickle out in faucets reserved for the elect. . . ."[37] The extension service had not come without controversy, for "rural sociology" was, to many, far more suspect than "book farming" had ever been. But the new theme on the campus and in the extension service had prevailed over opposition which had reached into the Board of Trustees and even to the office of the governor. The president had to scotch rumors at one point that he was about to return to his native state. "We're glad you didn't go to Lansing," sang the alumni of Boston, gathered in Young's Hotel, on the tenth anniversary of his first meeting with them.[38]

8

Marking Time

1916-1924

The Massachusetts Agricultural College in the winter of 1916 was preparing to celebrate within a few months its fiftieth anniversary. The trustees had asked the legislature for nearly one half million dollars for new buildings and equipment in order to care properly for the expected increase in enrollment. And a special state commission under President L. Clark Seelye of Smith College was studying the College in order to give directions to its future development.

There were mixed feelings in Massachusetts about this projected expansion. From one quarter came the complaint that large sums were being spent for education that was foreign to the purposes of the agricultural college, as witnessed by the numbers of graduates who took up other occupations. On the other side were many who agreed with the *Springfield Republican* that "Massachusetts, in the agricultural college, has a great institution and one of much greater potential capacity for the next generation than for the present."[1] Within the College there was serious concern about its future, but the thought of the nation's becoming involved in the war then raging in Europe was not a part of it. President Butterfield

saw a "critical situation" existing — one which grew out of the recent reluctance of the state to provide adequate financial support for the College. No one could foresee what the next year — much less the next ten years — would bring forth. What the prior ten years had brought forth, however, was apparent.

It was a vastly improved college to which the 153 freshmen came in the fall of 1916. In ten years the undergraduate student body had grown to nearly 600, and the graduate school now enrolled 50 candidates. The instructional staff, which had expanded from 29 to 72 persons, now offered 275 courses. The experiment station carried on a well-developed program of research, while the recently organized extension service reached a wide audience. Over 2000 persons attended its meetings on the campus in 1916, and many more benefited by the opportunities which it offered in the communities of the state.[2]

During this ten-year period of growth, the appearance of the campus had been materially altered. Improvements which cost nearly one million dollars had enlarged the physical facilities. Continuing the plans which had been initiated in the last few months of Goodell's administration, Butterfield succeeded in obtaining for the College a group of modern laboratories. Thus, Clark, Fernald, and Marshall Halls were made available for the science departments, French Hall and Fisher Laboratory for horticulture, and Flint Laboratory, Grinnell Arena, and Stockbridge Hall for the division of agriculture. At last the oldest department, agriculture, could boast of a building of its own. And in Bowker Auditorium the College had a modern assembly hall adequate to seat the entire student body, and convenient for the ever-increasing conferences.

The M.A.C. student had become much more cosmopolitan in the early years of the twentieth century. Not only did he call for increasing instruction in law, economics, and sociology that he might understand the world of business, but also he had brought to the campus many of the social characteristics of the Progressive Era.[3]

Much of the boisterousness and crudity that had been displayed in interclass rivalries was abandoned, without eliminating traditions such as the rope pulls, interclass games, and even the sophomore raids upon the occasions of freshmen class banquets.[4] The students, conscious of the growing moderation of some of their antics, were wont to ascribe the loss of "class spirit" to the excessive caution of the faculty committee on class contests.[5]

Symbolic of the transition was the increased attention to the attractions of club life, to organized campus activities, and to sports. In 1908 the students had organized a Social Union and furnished attractive rooms in North College in which to center its activities. A lounge, equipped for music, reading, or study, a game room in the basement for pool and billiards, and a trophy room to add luster to the prestige of athletic teams — all helped to promote the new sense of status in a college which had by now definitely abandoned the concept of required manual labor as a path to educational understanding.[6] Union entertainment programs and customs such as the college night banquets served to increase the occasions for common meeting of faculty and students which had hitherto been provided by the formal dances or the outings of the Metawampe Club, and may have contributed to the suggestion made in the spring of 1913 by one faculty member that resulted in the abolition of the military salute of faculty by students.[7]

The fascination of organization continued its hold upon the student in these years. By 1915 a non-athletic Student Activity Board had to be established for the control of their operations.[8] The Y.M.C.A. attracted many members and expanded its scope in 1913 by organizing the Social Service Commission for the purpose of promoting student work in neighboring towns. Holding Bible classes and classes in English for the foreign-born, and helping run boys' clubs and athletic teams, were common forms of service.[9] The Washington Irving Society was gone, but the *M.A.C. Literary Monthly* had drawn the attention of the creative-minded students, while the debating club and the public speaking council, organized in 1910, occupied the budding orators.

The *College Signal*, the weekly newspaper, continued to summarize the news, waxing enthusiastic over athletic victories but seldom undertaking to divert student thought to other topics. In 1914 this paper's name was changed to The *Massachusetts Collegian*, which it remains to this day.[10]

Interest in drama led to the first dramatic organization in 1910. Soon labeled the Roister Doisters, this all-male club became a very active organization. Although its facilities were very limited at the outset, and adult coaching was available only occasionally, the club by 1913 had established a routine of presenting two plays each year and making a tour at Christmas time to several cities in New York and New Jersey. The erection of Stockbridge Hall provided much-improved conditions, but not everything that enthusiastic students might desire. For the arduous journey of one student, James T. Nicholson ('16) who "rode the rods" to inspect the new stage-lighting equipment at Dartmouth College, did not result in the provision of similar equipment at M.A.C.[11]

The growth of the student body also brought an increase in secret fraternity activity. From 1867 the College had supported four such clubs, which took into membership from one-half to three-fourths of the student body. But the growth of the student body after the turn of the century was to reverse this proportion. By 1906 the two groups of students were evenly balanced. Despite the flurry of organizing activity which brought forth six new permanent fraternities in the ensuing ten years, as well as three or four which soon disappeared, the fraternity members constituted only forty percent of the entire student body in 1915. At this time a Commons Club appeared on the campus, but it failed to enroll any large number of the non-fraternity group.[12]

In athletic activities the M.A.C. students achieved some notable successes between 1906 and 1916, despite the lack of modern playing facilities. Baseball and football games were held on the lawn between South College and the Drill Hall, basketball and indoor track on the small floor in the Drill Hall, and hockey on the College Pond when weather permitted. Two tennis courts be-

hind the Drill Hall offered opportunity for the development of a few very effective players.

Athletic teams at M.A.C. had for the most part been student coached until alumni donations in 1901 had made possible the hiring of a series of Dartmouth coaches of football.[13] This game continued to attract the greatest student interest, although the teams had but mediocre success until 1911. Baseball teams had their ups and downs, and basketball, failing to hold much attraction on this campus, was dropped for a year or two as an inter-collegiate sport. Meanwhile, in the minor sports of hockey and tennis M.A.C. was meeting with striking success, while winter indoor track teams competed successfully in the major meets held in Boston, Hartford, and even New York City.

The reputation of M.A.C. in intercollegiate athletics reached its apogee in the years immediately following 1910. For the first time her teams had the full-time services of experienced coaches. For four years the football team was served by Arthur E. Brides, a former Yale star. William P. Fitzmaurice trained the baseball teams and a Canadian hockey player, Fred H. Broder, was employed to coach hockey. The quality of the competition improved so strikingly that suddenly this small college found itself invited to play against the best teams in the region. A football schedule in 1916 that included games with Dartmouth, Harvard, Williams, Cornell, and Tufts, was matched by games in hockey in 1913 and 1914 with Harvard, Yale, Princeton, and Dartmouth. And in 1912 the college miler, David S. Caldwell, had qualified for the American Olympic Team. The student publications reflected the necessary degrees of spirit and pride in "our teams." Such emphasis was not to continue, however. In 1916, when Brides resigned, coaching was entrusted to a group of young alumni. And lop-sided scores in games with the larger colleges seemed to indicate that the schedule-makers perhaps had been over ambitious. By the following year the entrance of the nation into war brought an end to intercollegiate competition in football, baseball, and track. Hockey and basketball, revived in 1917, were the only sports in which competition with other colleges was continued.

The increasing interest in varsity athletics during these years was part of a general awakening of concern for the health and physical training of all college students. Despite the fact that its neighbor institution, Amherst College, had led the colleges by establishing a department for this purpose as early as 1861, and included a medical officer on its staff, M.A.C. pursued a different path until nearly 1910. It has been seen that her leaders had subscribed to the doctrines of compulsory manual labor and military drill as modes for the satisfactory building of bodies as well as of character. It was a practical solution of a knotty problem, and necessity became a virtue. Fields must be cleared and fences repaired; and the small space available in College Hall for games and exercise discouraged the attempt at indoor sports. Henry H. Goodell had done his best to supply some direction to calisthenics and gymnastics but increasing demands on his time had put a stop to this. Although the construction of the Drill Hall had afforded better space, indoor exercise continued into the next century to be primarily a function of military drill.

One of President Butterfield's first innovations was to hire a professor of physical education and student health. Dr. Percy L. Reynolds, a graduate of Springfield College and of the University of Georgia Medical School, became the first such officer. He was succeeded in 1911 by Curry S. Hicks. Dr. Reynolds had two years of experience as director of physical education at the University of Maine; Professor Hicks, training in Amherst College's physical education department and service as director of athletics at Michigan State Normal School.

During the years between 1908 and the outbreak of war, the functions of the new officer developed slowly. Although the instruction offered by the department continued to be largely a winter replacement for marching, a one-hour course in hygiene had now been added to the freshman curriculum, and another brief course in advanced gymnastics and leadership in physical education was available to seniors. Professor Hicks soon found his energies largely absorbed in the management of intercollegiate athletics,

in attention to the health needs of the campus, and in the acquisition of an athletic field.

Responsibility for the general management of athletic activities the College entrusted to a faculty director for the first time when Curry Hicks arrived in 1911. Previously the student managers of the various sports had responsibility for the scheduling of games, the raising of funds, and the purchase of equipment. Curry Hicks, in accepting this responsibility, called for the creation of a Committee on Athletics, which was selected in October of 1913. Consisting of the student managers, representatives of faculty and alumni, and the dean and president as ex-officio members, this committee established policy on eligibility, professionalism, and the elections of team captains and managers.[14] Thus athletic activities became recognized as a function of collegiate education, with responsibility for their direction and growth residing in the faculty and alumni. At this time William J. Fitzmaurice, the baseball coach, and Harold M. Gore, a graduate in the class of 1913, were added to the faculty to assist in required physical education courses.

The need for improved health services on the campus came forcibly to the attention of the administration during the scarlet fever epidemic of January 1913. Twenty-five cases, four of which were fatal, confronted a wholly unprepared college with the need for assistance from the town. The infirmary at Amherst College, which had been available under an agreement of some fifteen years standing, was used, together with two of the fraternity buildings on the M.A.C. campus. Later that year the legislature voted funds for an infirmary on the campus, and in 1915, two buildings were ready for use. In the meantime, the office of Professor Hicks became a clinic for the treatment of minor injuries and illnesses,[15] and a committee of the faculty led by Professor Charles E. Marshall of the department of microbiology was made responsible for the administration of the health program. President Butterfield called for the training of every student in out-of-doors games which might serve the man for a lifetime, and also instruction in diet, temperance, and personal health, while Professor Hicks announced that students who hiked with the faculty Metawampe Club would

be credited with meeting a portion of their requirements. "We have made substantial headway," reported President Butterfield in 1915, "but are not yet satisfied."[16]

The need for a modern athletic field had been felt for many years, but action had been left to the alumni. Professor Brooks' original drive for support had foundered in the depression of the 1890's. Revived in 1902, the Athletic Association had obtained a new charter with power to raise money through the sale of stock certificates but by 1910 had succeeded in raising only $1300.[17] The association had decided that the field should be located on the east side of Lincoln Avenue on property which was then privately owned. A concerted effort to obtain funds from the state in 1909 produced but $5,500, and the trustees personally came to the rescue by taking up certain options which were about to expire.[18] In the spring of 1910, the legislature acted favorably and the College acquired the Kellogg Farm and other property valued at over $18,500. In the winter of 1913-14 a concerted effort was made to provide the funds for draining, grading, and seeding the field. The student body pledged their physical labor and $25,000, while Professor Curry Hicks visited alumni clubs from New England to Chicago, seeking an additional $12,000.[19] In April 1914 eager students grasped picks and shovels to install some 5,000 feet of tile to drain the field. In May the grading was started and by winter the playing surface had been constructed. During 1915 the baseball diamond was laid out and bleachers and a portion of the fence installed. The first football game, played on October 9, was a victory over Colby College which served to dedicate the hard-won field. In the following spring, students again were enlisted, this time to lay the cinder track which would for the first time free M.A.C.'s team from dependence upon the facilities of neighborly Amherst College. Now President Butterfield began to look forward to a gymnasium with a swimming pool, while students interested in playing hockey mentioned an indoor rink.[20] The gymnasium and pool became a reality in 1931; the indoor skating rink remains only a hope in 1962.

In the meantime world events had set in motion forces which would have profound effect upon the growth of M.A.C. "The position of the United States in the present world situation cannot fail to challenge the attention of every student in a land-grant college," wrote the editor of the *Collegian* early in 1917.[21] "Mobilization" became a campus by-word by March of that year. President Butterfield was appointed chairman of a state committee on food production and proceeded to put into operation a program which was developed by Director Hurd and the extension service. A campus committee consisting of Professors Hurd, Brooks, Sears, and Lockwood set in motion a survey of students and faculty to determine their fitness and interest in military or agricultural service. In mid-March, plans for a Reserve Officers' Training Corps were announced. Added hours of training on campus were to be supplemented by four weeks of summer camp at Plattsburg, New York, resulting in an officer's commission for ten years of service in the military reserve.

Following the declaration of war, restlessness swept the campus. Within two weeks the faculty voted to allow college credit for the academic year to those students who wished to leave early to engage in farm work. Most of them did, and by May 1, the College was practically closed.[22] By June 1, nearly four hundred men were employed in agricultural positions and fifty were enrolled in military service. Many of the faculty were enlisted to visit these students during the summer and to distribute as widely as possible information on gardening and other aspects of food production and storage. Suddenly dignified professors of the arts found themselves serving in a vastly enlarged extension service program.[23]

The College, which reassembled in October rather than in September of that year, had been radically altered by the first few months of war. "Never in the brilliant history of M.A.C. has an entering class enrolled under conditions similar to yours," wrote Marshall Lanphear, editor of the *Collegian*, in greeting the freshman class of 118 students.[24] To the student it seemed that world history had never been as dramatic as in the last few years and that probably never would the College again experience such a

rapid transformation as it had since the declaration of war in April. Over 180 men had left the campus. The senior class and the graduate student groups were but half the size of the previous year. Eleven members of the staff were already in service, while a half-dozen others had taken leave to assume posts in state and Federal governments.[25]

Although the remaining 400 students tried to carry on the traditional pattern of college life, the effects of war were constantly visible. Some of the fraternity houses were closed in the fall of 1917, and there were vacant rooms in the dormitories. Musical clubs and the publications continued as usual, but athletic programs were sharply curtailed for the duration of the war. Intercollegiate football gave way to interclass contests, while other teams usually played a shortened schedule. When Coach Harold M. Gore, who had been placed in charge of the three major sports, left for France, the direction of the teams once more rested for the most part with their student leaders.

College life in the second year of the war was transformed much more. The number enrolled as regular students had shrunk to 350, and two-thirds of these were enrolled in the Student Army Training Corps. An additional 150 "unclassified" students had been admitted to this training unit who would not have been accepted as regular students under the usual admission standards.[26] Only 94 men and 32 women constituted the civilian portion of the student body of nearly 500 persons. For this small number of civilians, the curriculum offerings of the two upper years were reduced to two major programs — one in agriculture and horticulture, and the other in science.

War made military activities on campus much more serious. Although drill had been conducted since the opening of the college, the training had been but loosely connected with active service and was looked upon largely as justifying itself as a physical conditioner. Only those cadets who had shown special aptitude were reported to the Adjutant-General for possible induction into the regular army.

The threat of embroilment in war had awakened the War Department in 1916 to the need for preparedness, and late that year a systematic plan utilizing college training had been developed — the Reserve Officers Training Corps. Under this plan, which went into effect on the Massachusetts campus in December 1917, the training required of all was offered in the first two years. Advanced courses in military science and tactics were to be made available to those cadets who were selected by the commandant and who volunteered. Such students were also to be given intensive training in camp during the summer. Upon the successful completion of this program, the student was eligible to receive a commission in the army reserve.[27]

But the rush of events supplanted this new plan early in 1918 with a second and more ambitious one. Almost every college in the nation established a Students' Army Training Corps. Designed to provide a body of men with basic training, the Corps included men who normally would have been enrolled in college and a smaller group who could satisfy certain army requirements but who would not normally have been accepted in college. All were inducted into the regular army and assigned to college at government expense to take military drill and academic subjects prescribed by the War Department.[28]

The Corps, established at M.A.C. on October 1, 1918, with 351 enrolled, had a short existence here. War ended on November 11 and the Corps was disbanded by December 21, 1918. The training that the men received was largely makeshift, reflecting the inexperience of the United States in this type of program. Thirteen hours per week were given to military science, and several more to subjects such as English, public speaking, French, and war aims. The small training staff proved to be inadequate for the purpose, and expediency dictated methods. Professor Mackimmie was far from wholly satisfied with the instruction in oral French, which had to be conducted for four hundred men massed on the athletic field by repeating sentences in unison.[29]

The signing of the armistice in November was a signal for a quick return by the college, and by the nation, to a civilian life.

"How," asked the editor of the *Collegian,* "may we out of the wreck that the war has made of the college build up a structure that is very much the same as the old, but with all the good enlarged and all that might be done away with done away with once and for all?"[30] When college opened for the second term, every effort was being made to resume a regular routine. It did not take long to bring the men back on a civilian basis, for 353 were enrolled in February. Fraternity houses once again were occupied by males, and the girls returned to Draper Hall. French Hall was relinquished by the military and classes were again held in its rooms. The campus was hardly the shambles that callow youth had described, but neither was it the same college that had existed when war burst upon it nearly two years earlier.

Although the students and, no doubt, many of their elders longed for a return to the old M.A.C., this was no more possible than "return to normalcy" was in the nation at large. To M.A.C. the events of the war period had brought changes which were not to be erased. Some were developments which had been portended for several years and which the war had helped to establish permanently, while others were the consequences, directly or indirectly, of the war. The most significant changes were the establishment of an educational program for women and of a two-year practical course in agriculture, a shake-up of staff, and a new administrative relationship between the college and the governmental bureaus of the Commonwealth.

Recognition of women's rights in America was greatly advanced by the war. Mobilization had brought many women into military service, into industry and agriculture, and into educational and other community activities. To M.A.C. mobilization brought the beginning of a program designed for the training of women. President Butterfield had proclaimed the ideal in his 1906 inaugural address and suggested in 1914 a woman's college of agriculture and rural home life that might develop in affiliation with M.A.C.[31] The initiation of extension work in home economics, and the expansion of vocational education in the secondary schools with Federal support through the Smith-Hughes Act of 1917, created a

demand for trained teachers and leaders. When the men departed from the campus, the college initiated a new program for women.

Thirty women were on campus in the fall of 1917, housed in two fraternity houses that the college had leased as residences for them, when President Butterfield called upon the legislature to provide a staff, a building, and equipment for a women's branch of the college. His philosophy was in a nebulous stage. He preferred a segregated college, but he recognized that economy would require mixed classes. He leaned to a curriculum that would stress vocational elements but wished it to have wider aims than the preparation of teachers of home economics. Some training for research work, particularly in the science of food, should be provided, while a large measure of attention should be devoted to humanistic subjects so that the young women might gain a better understanding of the needs of their community, state, and nation.[32] After a delay of one year, funds became available for instruction and for a women's dormitory to house one hundred students. In 1920 there would be twice as many women on the campus as there had been in 1917.

The provisions instituted in 1919 for the education of women were in accord with the president's educational philosophy but did not lead to the autonomous college of which he dreamed. Instead of establishing a single women's curriculum, the College instituted several programs which appealed to a diversity of interests. To meet the needs of regular students, a group of elective courses in the preparation of foods and clothing, in home management and home nursing, were made available. Miss Edna L. Skinner, who had received her training and initial experience in teaching at Columbia University, was selected to give these courses and to become the head of a new department of Rural Home Life in Butterfield's division. Simultaneously, the catalogue announced courses for women in recreation and gymnastics which would be conducted by Mrs. Curry S. Hicks.

Another innovation, which was to prove attractive to a considerable number of women students, was the provision for a women's program in the newly organized two-year, non-degree

course in practical agriculture. Training similar in nature to that in the regular courses was injected into this curriculum, as well as into the short ten-weeks winter course program. One course especially designed for teachers of home economics was established in the summer school.

The new two-year course included six months of on-the-job field training. To supervise the work of the men and women engaged in this training, two staff members were required. On January 1, 1918, Miss Margaret P. Hamlin, a Smith College graduate who had, in Amherst, developed a hobby of farming, was appointed as one of these members with the title of "agricultural counselor for women." Miss Hamlin developed this position until it encompassed the full activities of a Women's Placement Office. For thirty years, she performed her duties most successfully. She took a great many trips, some under arduous conditions, to locate and evaluate positions in which students might be placed. In an area extending from Germantown, Pennsylvania, to Northern New Hampshire and Maine, she found jobs for women in greenhouses and flower shops, vegetable gardens and dairy farms. One of the most interesting examples of this placement work involved a large dairy farm on an estate near New York City, which was run by two women, one a professor of geology at Columbia University. On this farm Miss Hamlin placed a number of young women who had studied animal husbandry at M.A.C. Two of these students later became farm managers on the estate.[33]

The two-year practical course, of which the women's program was a part, was another war-time development that became a permanent and successful part of the college program. When such a course had been attempted in 1893 there had been insufficient interest in it, but the demand for farm labor which developed with America's entry into war had placed a premium upon rapid but thorough training. In the fall of 1917 the College had admitted some fifty high school graduates who could not meet the standards of admission to degree candidacy. The student body expressed some resentment at this invasion of a special group. The student senate, however, found the way for reconciling traditionalism with innova-

tion: "They must salute Senate members, shall not smoke on campus at any time during the first year, must wear a distinguishing button, but may don corduroy trousers, and profanity is to be avoided under any provocation."[34] In 1918 legislation authorized the formation of a two-year program, and thirty-seven students were enrolled. Professor John Phelan, who had come to the College to give instruction in rural sociology, was made director of this program and the short courses which had been developing under Director Hurd. The program proved its value in an extraordinary way in the next year when nearly five hundred veterans of military service received special training in it under the guidance of the Federal Board for Vocational Rehabilitation.[35] Ten years later this practical program was named the Stockbridge School of Agriculture; by then it had become a well-established feature of the college work.

Although it was not realized in 1918, the period of significant growth of the Massachusetts Agricultural College had ended. Over the next ten years there would be a decline in student enrollment, especially in the regular four-year program; it would be an era of stringent economy in budgetary appropriations, of an unusually high overturn of faculty and frequent changes of presidents. Many of the causes were related to nation-wide conditions — the post-war decade of depression in agriculture, industrial expansion, the decline of progressivism in politics. Other causes were peculiar to the Massachusetts scene. While economic and social developments were slowly creating a new interest in public higher education in this state, constitutional changes in the Commonwealth raised new problems of administration. For M.A.C. it was a period of transition, one which lasted much longer and finally resulted in a greater change than anyone could anticipate: the transformation of the agricultural college into a state college.

The overturn in staff, which had begun with the impact of war, continued at an increasingly rapid pace in the years following the war. Uneasiness was present on the campus as a result of changing state administrative procedures which seemed to diminish the authority of the trustees and their power to direct the growth

of the College. Concern was felt, also, because the salary scale in the college, now tightly controlled by the State Bureau of Personnel, was increasing at a slower pace than in any other land-grant college and had fallen behind the rising cost of living.[36] Between 1918 and 1923, retirement and resignations brought about a change of nearly fifty percent in key personnel.

The administrative group was one of the first to feel the effects of changing personnel in the post-war period. President Butterfield had an able assistant in the dean, Edward M. Lewis, but was faced with finding a new librarian, directors of the experiment station, extension service, and the short courses. (The last position was a new one made necessary as a result of the inauguration of the two-year course in practical agriculture.)[37] The turnover in the teaching positions was heavy, being most frequent among the younger members of the staff. Retirement was the cause of a few of these changes, but most resulted from decisions to move to more attractive positions. Many of the posts were filled with young men who had gained their experience in their departments. And most of the new department heads and senior professors who took their positions at this time would remain at their posts for fifteen to twenty years.[38]

Although this was an era of many changes in personnel, it was not one which saw experimentation with the curriculum. The divisions of agriculture, horticulture, and science continued almost unchanged the programs which had been firmly established in previous years. One new departure was attempted on a modest scale in horticulture when a department of horticultural manufactures was introduced with Walter W. Chenoweth as its founder. This program was created partly because of the war-time emphasis on food production and preservation, and partly because President Butterfield's conviction that the real future of an agricultural college in Massachusetts lay in its capacity to develop as a "food college."

The president's division, rural social science, entered a state of partial transition in this era. Although the program in agricultural economics was continued much as before, there was considerable

change in the remaining departments of the division. The new department of rural home life was the most striking change, and attracted increasing numbers of women students. In the department of rural education the appointment of Winthrop S. Welles in 1919 led to a broadening of the curriculum from one of purely agricultural education to include the training for teaching of all subjects in secondary school. Shortly, new work dealing with educational psychology was introduced by Harry N. Glick, who joined the department on the retirement of William R. Hart in 1923. Meanwhile, the teaching of rural sociology was cut back to a one-man basis when John Phelan was moved into an administrative post, and President Butterfield found himself more and more occupied with executive duties.

The division of humanities, which never had reached a well-rounded state, became further unbalanced in the early 1920's. While the large department of language and literature profited from the strength which it had developed during the previous decade, the staff of the social science departments, never more than two or three men, was completely wiped out following the departure of Robert J. Sprague in 1920. For a brief time the courses in history and government were carried on by an assistant professor, but after 1922 they went unoffered, along with those in economics and sociology. In 1924 they would be revived when Lewis, the new president, took up the work in American government, and Mackimmie shifted to history and economics. The social sciences were still the vagabonds of the campus.

The adjustments taking place in the post-war period had been accompanied by a change in the relationship of the College and state administration which proved to be unsettling. Issues concerning the scope of the college work, the adequacy of financial support, and the freedom of the trustees in the development of policy, became increasingly perturbing and had much to do with the eventual resignation of President Butterfield. "The present crisis is not wholly a result of the war," wrote the president in 1920. "It consists of certain pressing questions about policy, program and support that have been gathering force for some time, and now

demand answers." To him the College seemed to have reached a "crossroads."[39]

The forces which had produced the problem-filled situation were complex ones. During the Progressive Era, concern for efficiency in personnel and financial management had been transferred from the world of business into the operations of public administration. In Massachusetts this brought about in 1912, among other developments, the creation of the Commission of Economy and Efficiency.[40] One of the effects of this change upon the College was salutary, for it resulted, after a careful study of its operations and needs, in a recommendation of a progressive, five-year plan for maintenance budgets which the legislature adopted. But the needs for capital improvements seem not to have been as apparent, with the result that efforts to secure a library, a student dormitory, and a modern chemistry laboratory were unsuccessful.[41]

Another source of President Butterfield's problems began, ironically, as an effort to help him. In 1916 a major step had been taken in the planning of the future development of the Agricultural College when a special planning commission was authorized by the legislature. Governor Samuel W. McCall appointed Dr. L. Clark Seeyle, president of Smith College, as its chairman. Other members included Dr. Payson Smith, commissioner of education, Charles E. Burbank, supervisor of administration, Warren C. Jewett of Worcester, and William L. Whiting of Holyoke. In January 1918, the commission submitted a sixty-page report which, although critical at some points, in general applauded the work of the college and made strong recommendations for increased support. Particularly, it wished no change in the method of appointing trustees, which it found to be free from partisan political considerations, and it recommended that the College should be included in the operations of any state budget plan which might be adopted. For the faculty, the report called for adequate compensation and the adoption of a retirement pension system. Educational standards should be maintained at a high level and the graduate school, experiment station, and extension service continued in their legitimate fields. "The first need of the College

is permanent and adequate financial support," said the commission; and it recommended the provision of a permanent annual appropriation of twelve one-hundredths of one mill for each dollar of assessed valuation of real estate and personal property in the Commonwealth. Modern buildings should be erected to replace some of the cheaply constructed and out-worn structures then in use. Special mention was made of the need for a library, chemistry laboratory, gymnasium, and armory, as well as for a complete dormitory system.[42]

At this point the College became enmeshed in a process of state administrative reorganization during which most of the commission's recommendations were forgotten. In 1918 the legislature, acting on an article of admendment to the state constitution which called for the organization of all state administration in not more than twenty departments, terminated the college charter and the corporation which it had authorized, and established the College as a body of the state administration.

In the following year the college was placed under the direction of the commissioner of education.[43]

Two other changes which had unusual significance for the College emerged in the administrative reorganization. When the new state budget system was instituted it deprived the college administration of fiscal flexibility which frequently was needed for efficient planning. Instead of the conventional appropriation for services and maintenance, there now appeared a line budget, which made it virtually impossible for the trustees to meet unusual demands for expenditure by transferring funds.

The second innovation deprived the College of the direct use of its campus revenues — some $150,000 received from tuition and income from sale of products — by the requirement that all such funds be deposited in the state treasury to be spent only under appropriation. Simultaneously, new regulations adopted by the state supervisor of administration subjected the college officers to a thorough system of controls over appointments, over the salaries, titles, duties and qualifications of staff members, and even over specifications regarding its publications. Under this system,

which seemed to infringe unduly upon the functions and authority of the trustees, President Butterfield experienced the sensation of increasing frustration.

The final two years of Kenyon Butterfield's administration were particularly unhappy ones for him and difficult ones for the College. Despite urgent requests by the trustees, appropriations for salaries and maintenance failed to increase. And requests for new buildings were only partially honored. The state did build a women's dormitory, the Abigail Adams House, in 1919, and later the new chemistry laboratory, which was named for Goessmann, when the original building burned in 1922. Meanwhile the alumni had erected Memorial Hall in 1920 and 1921, a center for student activities, with offices for the alumni association.[44] But still the College lacked an adequate library, gymnasium, and administration building.

In the meantime the complexities arising from the new system of controls multiplied, and soon President Butterfield felt that the purpose of the new commission on administration and finance was to determine educational policy more than to encourage efficiency. In a statement made to the Webster Commission on August 10, 1921, he brought the issue into the open and received generally sympathetic comment in the newspapers of Massachusetts. The trustees, he maintained, had lost their authority over college policy to the Board of Education, and their power over salaries and appointments to the Supervisor of Administration; the economy and efficiency of the College, instead of being improved, were impaired by the deluge of red tape and interruptions rising from the new system.[45] If the president needed documentation for his charges he had not long to wait. For on August 19, the Supervisor of Administration revealed his attitude in a public statement:

> The man with whom the supervisor deals is the Director of the Department of Education, who is in charge of the Agricultural College. . . . There is no question but that we must arrive before long at a decision as to what the Agricultural College is going to be. It is by statute an agricultural college, yet actually it comes pretty close to

> an academic institution. Yesterday I had requisitions from that college for its enlargement by the addition of an assistant professor of citizenship, another for an assistant professor of French, and another for an assistant professor of rural journalism. That may be the function of an agricultural college, but not what I believe the statute intended. . . . I believe that the Legislature must and should decide very soon whether it is going to be a state university . . . or whether it should be an agricultural college to turn out people to go back to the farms. Of the present output of the college's four-year course very few remain to be specialists in particular lines, or become instructors and teachers in farming, and not farmers.[46]

Public sympathy, which he received in good measure, brought no solace to Kenyon Butterfield, and in May 1924 he submitted his resignation as president. He wrote to the commissioner of education, Dr. Payson Smith, "I was driven out by this whole business of State House control."

So ended the era of the active and widely respected Kenyon L. Butterfield. On the whole, the feeling of the college community towards him was caught by Dean Lewis when he said of the departing president:

> All we can do at this time is to express simple and sincere gratitude, and to affirm with pride that Kenyon L. Butterfield was a man of broadest visions and outstanding leadership — a wise administrator and builder — a gentleman of rare personal charm, of unbending moral convictions, and of highest ideals, who gave the unusual power and energies of his best years joyously and unreservedly to the great cause of agriculture and to the education of the youth and people of Massachusetts.[47]

9

From M.A.C. to M.S.C.

1924-1939

Massachusetts Agricultural College was still at the crossroads when Kenyon L. Butterfield left in 1924 to become president of Michigan State College. His effort to free the College from the controls of the Commission on Administration and Finance had failed. That body, rigidly opposed to widening the scope of the curriculum, was still in a position to veto decisions of the trustees. Nor had the legislature been persuaded by the labor unions to consider sympathetically their petition for a state university. By exercising stringent economy in the college budget it seemed to say that the needs of the industrial class would not be met by expansion of the agricultural college.

In making their choice of the next president the trustees moved with caution, if not with some measure of indecision. Their choice finally fell upon Edward M. Lewis, dean of the college since 1914. Lewis served as acting president for two years and then was installed in the position in his own right. The choice had much to recommend it, but it was ill-fated from the start. In Lewis, a graduate of Williams and a professor of English literature, they had chosen an educator with a liberal philosophy. When serving as

the acting president Lewis had refuted vigorously the popular charge that the college had strayed away from its original purpose and was neglecting agriculture. His basic contention was that in the founders' minds the idea of a liberal education was originally linked closely with the idea of a technical and scientific training and that under Butterfield the curriculum had changed only in the direction of becoming practical and vocational. "I would gladly invite any one to make a careful comparison of the curriculum of 1905-1906 with the curriculum of the present day. He will now find no Latin (to his surprise probably), only one-half as much English, less than one-half as much foreign language, only one professor teaching economics and government, and only one-tenth of a student's total time required in other than agricultural subjects."[1]

In the controversy over political control of college policy Lewis was, after Butterfield left, forthright and outspoken in defense of the authority of the trustees. But he felt that the board had placed him in an impossible position by insisting upon a policy of "patience and waiting" rather than seeking immediate legislation to change the administration's situation. "Though I was from the beginning firmly of the belief, as you know, that legislation was necessary and inevitable, I gladly acquiesced in your judgment," he told the trustees. "Nevertheless I must report to you that the sum total of accomplishment is entirely negligible. . . . The time has come for plain speaking and action."[2] In the mind of Lewis the College should move vigorously for legislation to restore the authority of the trustees and for appropriations to enlarge the physical plant; further, it should face squarely the issue of what its scope and academic goals should be.

Moving firmly, Lewis developed his campaign during 1926 and was soon encouraged by new signs of support from the trustees. Under the political guidance of Fred Griggs, an interested alumnus and member of the legislature, a strong effort was made through House Bill 6 to reestablish the freedom of the trustees from the controls of the Department of Education and the Commission on Administration and Finance. In September the trustees also ap-

proved Lewis' new five-year building program which called for $1,245,000 of new buildings and improvements. Included in this plan were requests for a dormitory, a gymnasium for men and for women, an administration and classroom building, a library, and expansion of Marshall and Clark Halls.

Revision of the curriculum was being studied by committees of faculty and students, while the president studied new provisions to encourage professional improvement.[3]

But the hopes of 1926 were soon dashed. The anticipated restoration of powers to the trustees was avoided in a simple statement by the legislature that the surveillance of the Department of Education should not affect the powers and duties of the trustees. The legislature left the College still an autonomous section of the Department, and it left the Commission on Administration and Finance with authority over purchases, salaries, and other budget matters.[4] While the operating budget was approved virtually as asked, the request for new buildings was ignored, and a meager $38,000 was made available for improvements.[5] On August 31, 1927, Edward M. Lewis resigned to accept the presidency of the University of New Hampshire.

The College selected a research chemist, Roscoe W. Thatcher, as the successor of Lewis. Thatcher had come from a farm in Ohio and received his education and first experience in Nebraska. He moved to Amherst from the position of director of the New York Experiment Station at Geneva. In taking his place at the helm he cautiously committed himself to "that best type of vocational education which seeks to dignify and ennoble the agricultural and individual pursuits of life and to fit individual students for successful, intelligent and contented occupation of some worthy vocation as citizens of this great country."[6] Repudiating the right "to announce policies for myself or for the institution," the new president pledged himself to abide by the edicts of the legislature, the board of trustees, and the executive officials of the state. On the issues concerning the nature and scope of education at the Agricultural College he took a safe middle course. The primary objective would be to dignify the vocations of agriculture as a life work and to

emphasize the desirability and worthiness of rural home life, but to avoid the narrow specialization of the trade school conception of vocational education. Indicating a desire to champion the cause of adequate opportunity for publicly supported collegiate education for all youth who might be financially unable to acquire it elsewhere, Thatcher nevertheless was unready himself to advocate that the scope of the College be broadened to suit the purposes of students who might be interested in other than agricultural occupations. In short, he did not come out in favor of transforming the Agricultural College into a State College. "What shall be the place of this College in the educational system of the state is, of course, the state's problem."

But forces were to bring a change in the College sooner, perhaps, than President Thatcher realized. From the outside came increased demands for admission, and the industrial centers showed continued interest in the establishment of a university. The students pressed for a change of the college and a broadening of the curriculum to permit the granting of an Arts degree. In June 1928, the student Forum, following a lively debate of this issue, presented a petition with five hundred signatures to the trustees. This body attempted for a time to delay action, offering the reason that the Federal Bureau of Education was preparing a voluminous study of land-grant colleges and the trustees should see it before coming to a decision.[7]

In the spring of 1929 the student movement became more aggressive. In May a voluntary group, styling itself the Agitation Committee, determined to bring the issue before the alumni. The members of this group were Lauri Ronka, ('30), chairman; William E. Bosworth, ('31); Herbert A. Allen, ('30); Henry W. Jensen, ('30); Lewis M. Lynds, ('30); Paul A. Smith, ('31); and Fred S. Troy, ('31).[8] During the following winter the movement gained momentum among the alumni. Clubs which took the name of "University of Massachusetts" appeared in five centers from Boston to Ithaca, New York, and gave strong support to the students and their cause.[9]

By November of 1930 the trustees had been persuaded to recommend the change. President Thatcher explained in his annual report that although student and alumni opinion had been very influential in the making of this decision, a much more important cause had been the continuing pressure upon the legislature to found a university.[10] A bill to effect the change of name of the college, but with no provisions redefining the purposes of education which it offered, met with but little opposition and was promptly passed. On March 26, 1931, Governor Joseph B. Ely signed the measure and invoked an emergency provision that enabled the graduating students of that year to receive State College degrees.

Between the inauguration of Lewis and the date of its debut as a state college, the College had expanded substantially. Growing from about 500 up to 760, the undergraduate body had saturated the housing capacity and in 1931 the trustees halted further growth until new dormitory space should become available. The increase of women students from 100 in 1925 to 216 in 1931 indicated a trend that would contribute to the changing character of the College.

In this six-year period there was considerable overturn of staff, but very little change in the organizational pattern which Butterfield had established. The administrative group experienced the greatest change. William L. Machmer succeeded Lewis in the dean's office and was to guide its destinies for over thirty years. When John Phelan left to return to Michigan with Butterfield, his place as director of the short courses, including the two-year course in practical agriculture which was given the title of Stockbridge School in 1928, was taken by Roland H. Verbeck. The new director, a graduate of the College in 1908, had held administrative positions in secondary schools in Massachusetts and Maine, and had served for five years as director of the School of Agriculture at Saint Lawrence University, Canton, New York. The retirement of librarian Henry J. Green in 1925 led to the appointment of Basil B. Wood, who had had experience in libraries of Chicago, Pittsfield, and Springfield. Three other administrative posts were to

change hands soon thereafter. In 1927 Professor Charles E. Marshall, dean of the graduate school, passed away. During his fifteen years as director the school had expanded from two or three students to over one hundred and had achieved a national reputation for high standards. For a brief period this post was filled by Professor Henry T. Fernald, and on his retirement in 1930 it passed to Frederick J. Sievers, who had succeeded Sidney B. Haskell as director of the experiment station in 1928. Director Sievers had begun his career as a high school principal in Wisconsin and later became a soil chemist after taking university training at Madison. For eleven years prior to his moving to Amherst he had been the director of the department of soil at the State College of Washington. At Massachusetts State College he would continue in his joint capacity as director and dean until retirement in 1950. Two other administrative posts changed hands in 1926 as Willard A. Munson took up direction of the extension service, following the resignation of John D. Willard, and Robert D. Hawley succeeded Ralph J. Watts as secretary. Both Hawley and Munson were graduates of the College and had administrative experience before their appointments to their positions. When these readjustments were made, the administrative personnel had been selected which would, almost intact, guide the institution for nearly thirty years.

In this period several veteran teachers and administrators brought their careers to a close. Three division heads were among them. Professor James Foord gave up the headship of agriculture in 1928 in order to devote himself to teaching. His position was filled briefly by Frederick J. Sievers, and after 1930, by Victor A. Rice. In the same year Henry T. Fernald retired and Clarence E. Gordon succeeded him as head of the science division and of the combined department of entomology, zoology, and geology. Charles P. Alexander, who established an international reputation in entomology, directed the teaching work in that branch of the department. Another veteran, Frank A. Waugh, surrendered his administrative responsibilities in the division of horticulture in 1932 in order to devote himself to his department of landscape architecture. The new head was Professor Ralph A. Van Meter, a

pomologist who had been on the staff since 1916. Others who had been familiar and popular figures on the campus for many years reached the end of their periods of service. Death took Miss Helena T. Goessmann, department of English, in 1926, Charles H. Thompson, veteran horticulturalist in 1931, and Charles H. Patterson, known to many students for his stimulating lectures in the sophomore course in English literature, in 1933. Others who left by retirement or resignation included Edgar L. Ashley, teacher of German and music since 1908, Lawrence R. Grose, head of the department of forestry for ten years, and Enos J. Montague, who had directed the college farm since 1918.

In December 1932 Professor Joseph B. Lindsey closed a career of forty-two years of service as teacher and researcher in chemistry as well as vice-director of the experiment station; his career had begun during the presidency of Chadbourne. New figures coming to executive positions on the staff included Julius H. Frandsen, head of the department of animal husbandry and dairy science; Henry Van Roekel, who became chief of the laboratory in the poultry disease control service; Robert P. Holdsworth, head of the department of forestry; and Lyle L. Blundell, who succeeded Charles Thompson in horticulture. By 1931 the overturn in personnel, which had been heavy since the World War, had been reduced to minor proportions. Irritations arising in relations with the state administration were fewer, and the decision to broaden the scope of the College offered a more interesting and challenging future. The economic depression which checked expansion programs throughout the nation removed much of the temptation for professorial migration. Many of the young men and women who joined the staff in this era would progress through the ranks to senior posts in another decade.

The study of the curriculum which President Lewis had inaugurated resulted immediately in minor adjustments to the program which had been developed in the early days of the Butterfield administration. That some change was needed both the critics and the friends of the College agreed, but among the several groups who offered advice there was scarcely a consensus as to the

form which it should take. To the popular criticism that education was becoming "too cultural" and ignoring the needs of the practicing farmer, a special committee of the Massachusetts Farm Bureau Association had replied in 1922 that not curtailment but expansion of cultural and scientific courses was needed.[11] A committee of representative alumni at the same time complained that the College was guilty of over-specialization in the fields of science and agriculture, and should transfer some of its advanced courses to the graduate program. Aiming at a curriculum which would give the undergraduate student the fundamentals of a liberal education, the committee was critical also of the shallowness of some courses and the weakness of the graduates in spoken and written English. It suggested that the standards of admission and the quality of courses be raised, that many courses of a vocational nature be eliminated, and that the number of major concentrations be reduced.

During President Thatcher's administration some modifications of the curriculum were effected. Before these are discussed in some detail, mention must be made of the striking reorganization of the divisions of humanities and of rural social science. A new division of social sciences was formed under Professor A. Anderson Mackimmie, to include four departments — languages and literature; economics, history, and sociology; agricultural economics; and agricultural education. Rural sociology, reduced to a single course, had given way to general sociology, which was under Professor Frederick M. Cutler. And the work in home economics had been organized in its own division. Gradually the label of agriculture was being removed, especially in the field of the social sciences. Although the courses in education continued to carry it for several years, their content had already been broadened under Winthrop Welles and Harry Glick to include training for teaching all subjects in the secondary schools.

Basically the curriculum in 1928 remained the scientific agricultural program which had been designed by the founders in 1867. Variation had been introduced in the work of the students' last two years, but both students and graduates complained that the

rather rigid specialization requirements in these two years sacrificed the opportunities for a liberal education. The program of the first two years was uniform for all students, except for the two courses in each term of the sophomore year which were dictated by the requirements of the division in which the student planned to concentrate his advanced work. The common core in 1928 included two years of work in English — composition, speech, and literature — a year of French or German, a year of mathematics, two terms each of chemistry and botany, and one term of physics and zoology, together with a freshman course which was given by Marshall O. Lanphear. Although labeled agriculture, this offering sought to present to the beginning college student a broad view of modern civilization and its problems — scientific, commercial, and sociological. While the relationship of man to the problems of agriculture was included, this course was not primarily concerned with the practical issues of vocationalism. Within a few years it would be described as "Orientation 1-2," and the last vestige of the word agriculture would have disappeared from the prescribed curriculum. (This change appeared in the catalogue for 1930-31.)

Although all plans for education for the farmers and mechanics had acknowledged the importance of education for citizenship, the teaching of history, economics, and political science had been intermittent from the very beginning. In 1924 President Lewis had established courses in American and European government, while Professor Mackimmie introduced courses in modern European history and political economy. In 1928 the history program was broadened by the inclusion of a course in general American history, offered by Professor Frederick M. Cutler, a course in the economic history of the United States, and one in English history which was developed by Mackimmie. Some of this new work soon was introduced into the core curriculum of the College. A year in the social sciences had displaced a year of required natural science. All sophomores were required to study economics, American history, and, for a short time, agricultural economics. When the three-term calendar was replaced by semesters in 1932, the last-mentioned course was dropped as a prescribed study.

Although there seemed to be developing a trend toward a more liberal-arts type of curriculum for the freshman and sophomore years, the introduction of divisional requirements into the freshman year in 1929 maintained a measure of vocational emphasis. Freshmen students in the fields of agriculture and horticulture were required to pursue a beginning course in agriculture and another in horticulture, in place of modern language, while the students in home economics substituted their beginning course for either modern language or mathematics.

Massachusetts had answered its critics by offering something of a wider choice between scientific vocationalism and the humanities. It would not be long before the demand would come for granting a degree of Bachelor of Arts.

Administrative officials such as the president and the dean looked upon the year 1931 as a milestone in the development of the College. "One of the most significant years in the history of the institution," wrote Thatcher. "It is quite apparent that the College has entered upon a new period of growth. Never before has there been so much interest in the College," commented Dean Machmer.[12] But the historian, having the advantage of the perspective of time, must record that the College, despite passing the milestone of becoming a "state" college, had entered a static period instead of one of growth. The brief period of transformation which followed the withdrawal of Butterfield came to a close with the curriculum changes which had been introduced under Thatcher. Depression conditions set back the tide of moderate increases in budgetary support. And ill health forced the resignation of President Thatcher in the summer of 1932.

The new president, Hugh P. Baker, came to the campus from the position as dean of the New York State College of Forestry at Syracuse University. After graduating from Michigan State College, Baker had taken work at Yale University and later received a degree of Doctor of Economics from the University of Munich in Germany. In his occupational life Hugh Baker had combined the academic and scientific with public and commercial service. A teacher at Iowa State, the University of Pennsylvania, and Syracuse

University, he had also served in the United States Forestry Service and held positions with the American Paper and Pulp Association as well as the United States Chamber of Commerce.[13] He was the first president of Massachusetts to have held a high position in industry.

To President Baker the pressing need appeared to be service to the state and nation in meeting the social and economic challenges of the depression. That the College had not been more disturbed by these conditions seemed "almost incredible" to him. That there was need for definite planning and adjustment of the College to prepare its students better for the complexities into which they would enter following college he felt was patent.[14]

The problems which had come to Massachusetts State College in the great depression which began in 1929, while similar in some ways to those of the 1870's and 1890's, nevertheless were different. Whereas in the earlier periods enrollment had dropped, now it continued to increase. A student body of 862 in September of 1929 had expanded to 1,220 four years later. The fiscal resources of the College, however, had not grown proportionally. Only two buildings had been constructed since Goessmann Laboratory had been erected — the Horticultural Manufactures Building (1929) and the Curry S. Hicks Physical Education Building (1931). Abigail Adams House was filled to capacity and the further enrollment of women was stopped in 1932. No new dormitory space for men had become available since 1868, and in 1933 the trustees placed a limit of 300 on the incoming classes until more campus housing should become available. Growth halted for the time; the 1932 budget was some $50,000 smaller than the previous year's, and there was talk of reduction of salaries. The Summer School was discontinued, as were many of the special lectures. That the College had entered a static era was clear; it was not yet apparent whether or not it would be subject to reverses such as it had experienced in the 1870's and 1890's.

Throughout the 1930's the College found itself buffeted by a storm of cross-winds of opinion on the issue of public-supported higher education. To many, the decision to transform the agri-

cultural college into a state college did not go far enough. Agitation for a University of Massachusetts continued through the decade. The industrial population eagerly wanted low-cost college education available, and the vibrant labor movement voiced its demand. Many students and younger alumni, and some of the faculty, felt that the State College should meet this demand. But the town of Amherst in the 1930's did not want the university here or "anywhere else ever."[15] Others were content with a small state college which would retain its basic character, making only those adjustments which would establish it as a liberal arts college of quality. They generally felt it as a democratic axiom that the State College should offer the degree of Bachelor of Arts, and they saw this degree as essential for those graduates who planned a future in professions based primarily upon the skills and values which it inculcated. Still others chafed over the change of purpose implied in the abandonment of the traditional name and hoped to preserve as much as possible of the character of "old Aggie."

The leaders of the State College would not be rushed into a hasty decision, much less converted to support of a program of radical change. Over the next five years they marked time while committees studied the needs of added facilities and planned changes to improve teaching and modernize the curriculum. A student committee for the latter purpose recommended in June 1934, the awarding of a Bachelor of Arts degree and the introduction of innovations such as a reading period to enable students to concentrate upon their studies before appearing for their final examinations. This committee was composed of Edmund J. Clow, Harriet M. Jackson, Harold C. Potter, Elizabeth Wheeler, Nelson A. Wheeler, Alvin S. Ryan, and Donald H. Smith, all members of the senior class.[16] A faculty committee headed by Marshall O. Lanphear made a thorough study of the curriculum in 1935 and submitted a report which contained several forward-looking recommendations for the improvement and liberalization of the educacational program of the College. One of the major changes suggested was a further reorganization of divisions in order to encourage new growth and to effect a better balance. Recom-

mended was the combination of the divisions of agriculture and horticulture, the establishment of two science divisions, one of physical science and mathematics, the other of biological science, and the creation of strong divisions of humanities and of social sciences. Within each division specific changes were designed to eliminate the dangers of duplication of efforts between departments, and to group instructors and their courses in arrangements dictated by the subject matter. The committee was particularly concerned with the ambiguities in the structure and teaching operations of the division of social sciences and made strong recommendations for the development of single departments in each of the disciplines. Throughout the report ran a consistent emphasis upon efforts to improve education for citizenship in a society which was faced with ever-increasing complexity. Training for the best use of leisure time — in reading, writing, and artistic expression — was recognized by the committee, which in this report drew something of a new pattern for the State College.

Some of the recommendations of Lanphear's committee were adopted, but the pace was slow and the changes which were made fell far short of the ideal which had been formulated. No alterations in the divisional organization of the College were made, and only meager efforts were made to adjust the offerings to better serve the students who no longer were interested in agriculture. The most noticeable change occurred in the division of social sciences. The creation in 1935 of a department of economics was symptomatic of the evolution which would in time produce single departments in each of the social sciences. By this arrangement most of the courses which had previously been offered in the department of agricultural economics were now combined with the instruction in farm management under Adrian H. Lindsey, and placed in the division of agriculture. The work in economics which had recently been developed by Professor Mackimmie was assigned to a single department under Alexander E. Cance, and shortly was expanded with new offerings when Phillip L. Gamble and Russell C. Larcom joined the staff. Professors Mackimmie and Cutler, now assisted by Theodore C. Caldwell and Harold W.

Cary, carried on the instruction in history, government, and sociology in one department, not two as the Lanphear Committee had recommended. A moderate addition of new courses attracted increasing numbers of students in an era of generally awakening national interest in political, economic, and social issues.[17]

A parallel development was slowly evolving in the work of the department of education and psychology. Under Butterfield this department had been created by William R. Hart to train teachers of agriculture and leaders for the club work in the extension service. Following World War I its program had broadened to encompass the larger field of secondary education. Courses had been added by Winthrop S. Welles in teaching methods, educational psychology, and supervised teaching. By 1925 more students were attracted to this major than to any other.[18] In the 1930's this department too began the process of subdivision which eventually would result in the creation of three departments. The initial impulse came in 1932 with the appointment of an experimental psychologist, Harry R. De Silva. The new work which he had introduced was taken up by Claude C. Neet when the former moved to Yale University in 1935. Within a few years there would be a department of psychology with a complete program of work in the new science.

In the meantime the parent department, which in 1932 had dropped the label of agriculture, was nurturing a third field, that of philosophy. Courses which had started as the philosophy of education underwent a transformation under Harry N. Glick to become the "History of Western Philosophical Thought" and "Types of Contemporary Philosophy." When Albert W. Purvis was appointed in 1936 the department was in a position to meet the increasing demands for the training of teachers and to enable Professor Glick to add new courses in philosophy and ethics. Gradually the misnamed division of social sciences was correcting its historical imbalance.

But little was being done to supplement the established studies in literature and philosophy which gave to the State College most of its claim to a liberal program in the humanities. Under Frank P.

Rand, who succeeded Charles H. Patterson as head in 1933, the large department of languages and literature had developed a rich offering of course work in English and the modern European languages. An adjunct to the work of this department was the course in the interpretation of music, which had been initiated by Edgar Ashley and was continued by Stowell Goding. In 1934 the College appointed its first instructor in music, Frank B. Stratton. This brought in class work in modern music and harmony, and at the same time afforded added guidance to the efforts of the students in musical production. The presentation of a Gilbert and Sullivan operetta and the reorganization of a college band were due in large part to Stratton's energy. Except for this effort, such work as the College offered in the realm of the fine arts was still to be found in the division of horticulture — in the courses of Waugh, Harrison, and Robertson — where the elements of drawing, design, and architecture, together with a semester course in art history, were mingled with the applied arts which were the major responsibility of this division.

The hesitancy with which changes were contemplated resulted from a reluctance of the administration to commit the College to a program which would lead to the Bachelor of Arts degree. Despite the agitation of the alumni, who had voted in their meeting of 1934 for its adoption, and of the students who argued for it in The *Collegian* and in the report of the Committee on the Curriculum, the college leaders preached postponement. Dean Machmer feared the "jeopardizing of the work leading to the B. S. degree," a reduction of students from middle class homes of industrial families, and a possible division of the faculty and student bodies into "competing camps." And President Baker thought there were more important problems in teaching, research, and student life than those related to a liberal arts degree program.[19]

Interest in the A.B. degree would not die. In 1938 the trustees voted to award the degree and to rename Mackimmie's social science division as liberal arts. President Baker hailed this as a definite step forward, which brought Massachusetts into line with most of the land-grant colleges, and discovered that it had not re-

quired numerous changes of curriculum nor larger additions to staff after all.[20] Nor did the new degree result in a shift of student elections to the new program, for it was carefully restricted in its scope. Only those who wished to specialize in the departments of language and literature or in history, or to specialize in other departments of the division but complete several courses in literature or history, were to receive the new degree.[21]

In the meantime some consideration had been given to the adaptation of the more technical phases of the work of the College to the needs of the time. To President Baker greater effectiveness in science and technology were essential in training men and women for the business of agriculture. And he suggested the need for broadening the program to include attention to untilled land areas, as well as to new methods in the processing and use of foods.[22] From his suggestion there soon emerged an expansion of the program in forestry and the introduction of instruction in wildlife management. Professor J. Harry Rich joined Holdsworth's department in 1933 to assist in the instruction in forest utilization, and in 1936 Professor Reuben Trippensee inaugurated the first courses in wildlife conservation. Another area of training which was close to the president's heart was recreation. In 1934 the College had inaugurated a Public Recreation Conference for the purpose of coordinating the efforts of all interested groups in the state. Three years later a modest program of instruction was announced in the catalogue. Professor William G. Vinal, appointed as the first professor of nature education, offered a course in public relations in recreational planning, while Professor Rand gave a seminar course in dramatic production. Professor Gore was now teaching camping and scouting leadership together with community recreation administration as part of the program in physical education.

Nation-wide emphasis upon the importance of technology had contributed to a concern for increased training of engineers. From the Massachusetts Federation of Labor came a request in 1935 for the provision of instruction in general engineering at M. S. C. But the administration, which had been studying the problem for over

a year, preferred that the Federation seek special authority for the College from the legislature. President Baker expressed the feeling that "there is no need at the present time and probably there never will be need, for the teaching at this College of what might be indicated as professional engineering courses." He added that the work of the first two years would be considered as sufficient foundation for any of the recognized engineering schools of the country.[23] Within a year, however, the president changed his position and a department of engineering was established. The initial program of this new department, which was administered by Christian I. Gunness, consisted of the courses in rural engineering that had been developed since 1914, together with the civil engineering work which had been offered from 1867 in the mathematics department. Professors George A. Marston and John D. Swenson had been transferred with their courses for the purpose. There was little instruction that was new, but the organization was prophetic.

By the end of the fifth year of its existence as a state college, Massachusetts had made the few adaptations in its structure and its curriculum which it was going to make. Over the five years remaining before the nation was to be plunged into war, she was to pursue a fixed course, experience only a modest expansion of student body and staff, and occasionally add a new offering. There was little interest, either in Amherst or in Boston, in material increase beyond the 1500 students who were enrolled in 1938 despite the repeated warnings in administrative reports that more and more were being denied admission. And the annual repetition of the need for buildings — a home economics building, physics laboratory, adequate auditorium, and an administration building — brought no response from the state.

Such physical improvement as was found resulted primarily from new aid supplied by the Federal government, and an arrangement made by certain alumni to bring private capital into the construction of dormitories. Through the Bankhead-Jones Act of 1935, the United States had nearly doubled the sum of all its various grants to the College, making possible fifteen new teaching positions in the first year.[24] In the meantime construction of the

Goodell Library and of a men's dormitory which was named for the late President Thatcher had been made possible through the Emergency Public Works Administration, with funds appropriated by both Federal and state governments.[25] There also was the hope that a women's building or dormitory might be obtained by the same arrangement. A remodeling of the Chapel when the books were removed to the new library provided offices and classrooms temporarily, and never adequately, for the two departments of language and literature, and history and sociology. The additional dormitory allowed for an increase of the freshman class to 350.

The major step towards accepting of a larger number of the ever-increasing applications was taken when a number of interested alumni, with Alden C. Brett ('12) as chairman, organized the M.S.C. Building Association in 1939 to underwrite the construction of two additional dormitories, Lewis and Butterfield Halls.[26] Raising a sum of $450,000 by a private bond issue, the Building Association arranged to lease the dormitories for $30,000 per year for twenty years, at the end of which time the buildings would become the unencumbered property of the state. After many years of discussion a solution of the housing problem had been reached through the initiative and loyalty of this group. But the need for classroom and laboratory space and the provision of adequate teaching staff still confronted the administration. "In these times particularly, we are convinced that public interest — in fact that proper national defense — demands a further development of the opportunities for higher education for the youth of the state and the nation," wrote President Baker in his last report before Pearl Harbor. And he felt moved to point out to the trustees that a university organization, for which alumni and others had already petitioned the legislature, would probably be the most effective means for carrying forward a gradual expansion.[27]

10

The Impact of World War II

1939-1947

There was an uneasy feeling on the campus in 1940 and 1941 as the tragedy of war was enacted in other parts of the world. For a decade college youth had watched the deterioration of international relations in Europe and Asia. Their outlook was idealistic — colored by the humanitarianism of Woodrow Wilson — and yet its basis was realistic. They were very conscious of the lessons of the history of their fathers' generation and alert to the threats to the security of their own. The *Collegian* printed interviews with Professors Gamble and Fraker who had returned from Europe at the end of the summer of 1939 amid the turmoil of outbreaking war. Professor Caldwell addressed the weekly convocation on the recent history of the warring nations, and the International Relations Club presented in October a panel discussion of the relationship of America to the world struggle. From the outbreak of war in Europe to the day of the fateful attack on Pearl Harbor students struggled, together with their elders, to comprehend the significance of this conflict and to find an answer to the question of the proper role of their country in the determination of world events. College students must guard against being too gullible "to the pleas of

propaganda organizations such as the America First Committee, the Youth Committee Against War, and others," warned the *Collegian*.[1]

While world events were sweeping the United States towards involvement in the war, problems of growth were becoming more pressing on the campus. Each year the number of applications for admission increased, and more and more qualified students had to be denied admission. The total enrollment including Stockbridge, graduate, and special students, then stood at 1773. Some progress had been achieved in the movement to provide more student housing. The Alumni corporation brought Lewis Hall to completion in 1940, and Butterfield dormitory, then intended for girls, in 1941. But the threat of war had tightened appropriations, forcing the College to drop plans for further expansion and even to curtail its usual summer school program.[2] In 1941 President Baker warned the trustees that the point had been reached where no further increase in the student body could be made until funds were provided for additional instructors and more adequate facilities.[3]

Meanwhile college life continued its forward pace. The curriculum experienced occasional changes. In 1940 the trustees approved plans of the education department to consolidate its teacher-training program into one semester.[4] And in 1941 a new program in public health was inaugurated on the campus.[5] The students introduced a new fraternity rushing system and voted to drop the honor system which had been in effect since 1921.[6] In 1941 the first Campus Community Chest was organized and raised funds for local and national organizations.[7]

To some people it seemed that the time had arrived for making a decision on the university question, talk of which had been revived by a new alumni committee in 1937. The directors of the alumni association had decided against going ahead with the action at that time. The college administration was out of sympathy with the proposal, and the student body showed but little interest. To the editor of the *Collegian* it seemed to be a good idea to let the college grow, improving its strength, finances, and equipment, before attempting the change. "Rather than have a shell of a

university (there is an "s" before the "hell") it would seem a better plan to have the College become a university when it has shown that it has the means to carry on the more complex work . . . ."[8]

By the winter of 1940, however, the alumni association had changed its policy, and through its leaders, Alden Brett ('12) and Ralph Taber ('16), made a concerted effort to obtain favorable action on the university issue. Through correspondence and also by personal appearance at the meetings of the trustees, these men pointed to the recent decisions of Maine, New Hampshire and Vermont to convert their land-grant colleges into universities. They argued that the need for low-cost education for the steadily increasing number of Massachusetts youth required not only the expansion of the facilities but also the broadening of the scope of the State College into a university. The rising demand for engineering training they felt particularly demonstrated this need. Finally, they argued, if Massachusetts was to have a university it was best that it should be in Amherst, and that several recent attempts to attach the name to other institutions proved that prompt action was required.

This move met with more enthusiastic response both from the campus and the trustees. President Baker in his annual report written in February 1941 spoke of obligations of the College "that go beyond those who live on the land . . . to all the people of the state."[9] Student interest quickened and the *Collegian* adopted as a masthead motto "Graduate from U. of M." The trustees accepted the alumni proposal and submitted their bill to the legislature. At the hearings the proponents, who greatly outnumbered the adversaries, argued that 20,000 Massachusetts students who were attending higher institutions out of the state wanted their own university.[10]

The legislature, however, did not look with favor on the measure. In spite of an affirmative vote by the Committee on Agriculture, the bill was allowed to drag and died at the end of the session late in the summer. Before another session was held, the United States was at war, and further efforts to create a university would have to await a more opportune time.

Once the national movement for preparedness got under way, the campus found itself concerned with new measures growing out of this effort. Late in 1939 the College announced a Civilian Pilot Training Program, with classes on the campus supplemented by flight training at nearby Barnes Airport in Westfield. Professors W. H. Ross, M. O. Lanphear, and Raymond Mintzner gave instruction in Theory of Flight, Meteorology, and Civil Aeronautics Regulations, and by February the first students in this course were making solo flights. On October 16 all males over 18 had been registered in Memorial Hall for the military draft, and the prospect of graduation suddenly had become much more elusive. A voluntary Physical Training Program for National Defense was initiated following the spring vacation in 1941, and a system of air raid wardens was established in the next semester. Despite the trying conditions — registration and classification for the Selective Service, the declaration of a national emergency, and the debate on whether America should be the arsenal for democracy — student morale remained high. Although the armed services were enlisting larger numbers of young men, the undergraduate male population had shrunk by only twenty. "We finished the year [1941] with calmness and good results," wrote Dean Machmer, "but not until the war is ended will we again be able to approach the regularity of attendance and performance we had this year."[12]

The role of the College in the second World War was a more systematic and better organized one than had been the case in the first war. In several ways its life was similar — the exodus of the male students and many of the staff, the concern for public service, especially in the production and conservation of food, and the training of military units preparatory to their entrance into military camps. But in other respects the second effort differed. Unlike the World War I period when many courses were dropped, during World War II although classes shrank in size and a few courses were cancelled, college activities were sustained in much the same pattern; it was, however, largely a woman's college. By 1944 the total number of students in the regular program had dropped from the 1263 enrolled in 1941 to 725; of these, 600 were women.

Fifty of the staff were in the armed services or other government posts.

The void left by the departing civilian male students was filled by groups of trainees. The first of these, which arrived on March 1, 1943, was the 58th College Training Detachment of the Army Air Force. By April there were some seven hundred of these men in uniform settled into the new dormitories on the hill. Memorial Hall had become the service headquarters for Captain Dewey Couri, and the *Collegian*, the *Quarterly*, and the Student Senate sought space elsewhere. Professor Ralph Van Meter had become an associate dean in charge of instructors for the military group and called for "aspirin by the barrel." "Off We Go, into the Wild Blue Yonder" rang across the campus as the trainees marched to their classes in mathematics and physics, English, history, and geography. A total of 2380 cadets were given a maximum of five months of training. Their morale remained strong, and many a man who had never dreamed of finding himself in a college classroom nevertheless took full advantage of the brief opportunity which was presented to him. When the war was over a number of these men would return to this campus to earn the baccalaureate.

Two other training units were established following the withdrawal of the "singing 58th." In the fall of 1944 a group of men who were enrolled in the Reserve Officers' Training Corps was housed in North College. Captain Winslow E. Ryan, a graduate of Massachusetts in 1940, was appointed as Commandant, and a program of courses was laid out.

Classes were scarcely well under way, however, when this unit was called to leave the campus. The quickening tempo of the battle in Europe had produced a change in plans after only six weeks.

The most challenging experiment in educational training for the services was that initiated in July 1944 for Air Corps Reservists, a group of boys seventeen years of age who were being trained before induction into active service. Captain Ryan was also in command of this program. (Officially this was known as

the Army Specialized Training Reserve Program.) Wisely it was decided to offer a basic first-year college course. Boys with varied preparation, including many who had never contemplated entering college, found themselves studying mathematics, chemistry and physics, together with history and English. As with the first group on campus, many proved to be fully capable of continued college work, and a number returned after the war.

The problems of the "freshmen in uniform" were social ones as well as academic. "Some of us have the feeling that the female student body looks down at us. . . . And how does the faculty feel toward the ASTRP's?" queried a reservist in the columns of the *Collegian*.[13] What had stirred the boy in uniform was an overheard feminine remark, "They're so young. . . . I met the neatest Amherst fellow the other night. . . . He is twenty-three." "So young" was also the faculty's impression, though arrived at from a different basis of assessment. Often was the worth of the experiment questioned, but the ultimate conclusion was generally that it had been very much worth while. The philosophy of the Morrill Act had prescribed the coupling of academic with military training to maintain a foundation for national defense. The full utilization of the college resources in time of war was both logical and beneficial.

By the spring of 1945 the battle for Europe was nearly over. The return of the servicemen, which was about to set in, would confront Massachusetts State College with great problems and lead to a multitude of rapid changes which would be more revolutionary in their effect than any in her previous history. That there would be an uprecedented demand upon all colleges for the education of servicemen was clear. Congress had provided for the rehabilitation of disabled veterans through higher education in an act approved on March 24, 1943, and for aid to all who had been in their country's service by a second law on June 22, 1944. These laws, popularly labeled the "G. I. Bill," were to open the doors of college for thousands of American boys to whom they otherwise would have been closed.

Massachusetts State College tried to keep abreast of national planning for the adaptation of higher education to meet this new need. In 1944 a committee of the faculty, with Professor Theodore C. Caldwell as chairman, submitted a report which laid a basis for meeting the needs of veterans. For vocational training, the College had available Stockbridge School with two-year courses in agriculture and horticulture. The four-year course, the committee felt, should be maintained with the traditional standards, and it urged preparation to expand the program in engineering. Arrangements would be necessary to adjust such matters as entrance deficiencies, credit for educational experience in the armed forces, and admission at other times than the traditional September opening. Recommended were special classes for the servicemen, particularly in freshman subjects, non-credit courses to remove entrance deficiencies, refresher courses in basic subjects to revive skills grown dull from interruption, and a continuation of the war-time accelerated schedule to shorten as much as possible the time required for completion of this training.[14]

But the return of the servicemen, which began in the fall of 1945 and reached major proportions in February of 1946, found the College poorly equipped to receive the numbers who applied. During the war period all new construction had been halted and replacement of equipment reduced to a minimum. The classrooms, laboratories, and staff, barely adequate for a college of 1700 at the start of the war, were woefully inadequate to handle the influx in 1946 and 1947. Emergency measures were required.

Action looking to the resumption of a building program on campus had been initiated by the State Emergency Public Works Commission in 1944. Plans were drawn for the erection of new buildings for the departments of engineering, physics, and home economics. In 1946 and 1947 the legislature authorized the construction of these three buildings, together with a laboratory for engineering, but it was late in 1948 before the first of these could be occupied. In the meantime students were flocking back to the campus.[15]

Quick action in 1946 made provision for additional housing facilities. The Alumni Building Corporation projected three new dormitories, which were named for Presidents Chadbourne and Greenough and for Dean Mills. And, acting upon the recommendation of Governor Maurice Tobin, the legislature authorized the erection by the state of five dormitories that would include quarters suitable for married students. County Circle quickly emerged on the western slope south of the veterinary laboratory.

Because other permanent buildings could not be made available before 1948, immediate temporary measures were required. Thus to this campus, in common with hundreds of others throughout the country, were moved many wooden utility buildings taken from army and navy training centers. The Federal Public Housing Authority erected eighteen wooden residential units and four larger wooden buildings for classroom and dining room use. Commonwealth Circle, across from Alumni Field on Lincoln Avenue, housed ninety veterans' families by 1948, as well as many single students. In this unit, together with Federal Circle behind Draper Hall, over two hundred students were given shelter. An office and classroom unit, labeled Liberal Arts Annex and placed to the west of South College, provided headquarters for the departments of modern languages, education, and psychology. Annexes to Draper Hall, for dining space, and to Marshall Hall for laboratory purposes, helped to relieve the burden. (The eighteen dormitory units were removed after five years, but the "annexes," although intended to be temporary also, nevertheless turned out to be more lasting — except for one which was lost by fire before it could be occupied. Liberal Arts Annex was not abandoned until the completion of Bartlett Hall in 1960, and the other two were still in use in 1962.) Such were the initial steps in this college's attempt to provide space for young people who had been in the military forces or engaged in defense work.

But the major drama of the year 1946 was being developed in the creation of the Fort Devens Branch of Massachusetts State College. Despite the fact that the Commonwealth contained a large number of private colleges and universities, it was obvious

to the State Department of Education in March that their capacity had been reached, and the governor announced that by May 1, 1946, 2,800 eligible veterans had been turned away from higher institutions. That the decision to open the Fort Devens Branch was realistic is also evident in the fact that in the three academic years in which it operated, from September 1946 to June 1949, the branch enrolled an aggregate of 2,686 students and employed 188 on its instructional staff. The action was vigorous and in certain ways unique, although the general situation in Massachusetts differed little from that which existed throughout the United States.

The decision to open the Fort Devens Branch resulted from a decisive action prompted by several sources, perhaps the most important of which were this College, the American Legion, and the State Department of Education. On April 14, 1946, President Hugh Baker had urged upon the governor the establishment of educational opportunities at the college level in one of Massachusetts' two army camps, and on May 14 the commissioner of education inspected Fort Devens to determine its suitability for the purpose.[16]

In the meantime Governor Tobin had initiated action by inviting all of the college presidents of the state to meet with him on May 14 to discuss the project. "We have a great opportunity to test the results of removing the economic barrier to higher education for earnest and fully qualified men," he wrote to these men, indicating at the same time that there was no plan to create a permanent institution in an army camp.[17] Out of the May 14 meeting emerged an exploratory committee which was headed by James B. Conant, president of Harvard University, and included in its membership the state commissioner of education and the presidents of Boston College, Boston University, Massachusetts Institute of Technology, Massachusetts State College, Northeastern University, Tufts College, Williams College, and Worcester Polytechnic Institute. After nearly four weeks of study, including consultation with the trustees of this College, the group recommended the establishment of a temporary college at Fort Devens which would offer three or four terms of instruction in English,

mathematics, biology, physics, chemistry, foreign languages, history, political science, and economics — the basic subject-matter in the arts and sciences which was included in the first two years of the curriculum of the State College. The recommendation was specific that the extension college would not undertake instruction beyond the sophomore level and that the State College should endeavor to provide facilities at Amherst to accommodate all of those who wished to transfer there in order to complete their education. The administration of the proposed college was to be in the hands of the trustees of the Massachusetts State College, augmented by a group of Massachusetts college presidents.[18]

The ensuing action was very rapid. The act to establish the branch was passed only six days following the report of the governor's Exploratory Committee, and by then the trustees were already looking for a president of the Fort Devens branch. Although Governor Tobin had leaned toward the establishment of a four-year college, the final decision was to follow the recommendation of the committee, which was supported by the president and trustees of the College and by the commissioner of education. The immediate need was to organize a college to present a freshman curriculum, and there was left only two and one-half months in which to do it. On June 26 the augmented board of trustees was sworn in and an executive committee constituted with authority to make appointments and sign contracts and leases for the board. Members of this committee included Joseph W. Bartlett, the chairman of the M. S. C. Board of Trustees, President Hugh P. Baker, and Vice-President Edward Hodnett. Within a month this committee had appointed the four major executive officers of the Fort Devens Branch; Edward Hodnett, president; Wentworth Williams, dean of the faculty; Joseph M. Stokes, dean of student affairs; and Gunnar E. Erickson, an official in the treasurer's office at Amherst, chief fiscal officer. The treasurer of the parent college, Robert D. Hawley, served the same function for the Devens branch.[19] The first-named four established residence at Fort Devens early in July and rolled up their sleeves to push ahead in the enormous tasks before them.

In the brief period of two months preparations were completed to receive 1310 students on the first of October. The achievement was the result of the unflagging efforts of many people, and it was possible only because of an unusually high degree of cooperative spirit on the part of Federal and state agencies, and trustees and the officers of the parent college and the new branch. The use of an entire set of permanent structures, together with numerous temporary wooden buildings, was obtained through negotiations with the Commanding General of the First Corps Area, the Federal Public Housing Agency, and the Federal Works Agency. Buildings designed for military purposes were hastily converted into classroom, laboratory, and library facilities. By January 1947 most of the work was completed. One-time garages became chemistry laboratories and lecture halls, and an old bakery a machine shop. Ample playing fields, including a nine-hole golf course, were available, while a commodious gymnasium, clubhouse, and other facilities did much to make possible the customary extracurricular collegiate atmosphere. Indeed, except for the lack of privacy in living and studying in barracks quarters, the student at Devens enjoyed an almost ideal collegiate setting.

The end of the war not only led Massachusetts State College into an emergency expansion program both in Amherst and at Fort Devens but also produced two other striking changes in the Massachusetts system of public-supported higher education. One was the transformation of the State College into a university, the other the establishment during the following two decades of a system of community colleges fostered by the state. The first of these, action on which began immediately, is the only one which concerns this narrative.

Conditions favorable to the establishment of a state university, which had not existed earlier, were present in 1946. Not only was there a backlog of young people whose opportunity for education had been postponed, but a new pressure of numbers was about to develop as a result of the increase in population and the desire of a larger percentage of the people for college training. A new emphasis upon education for professional needs, resulting in part

from the rapid advances in technology, led to the demand for programs in engineering, business administration, and teacher training. The first veterans who returned to the Amherst campus called for action, and proclaimed their intention of "plunging into every issue . . . running the gamut from housing to the goal of making M. S. C. a university."[20]

Political support for such a change was increasing. While bills in the General Court aiming at establishing a university had been almost perennial since 1910, there were half a dozen of these in the 1945 session. For a study of the broad educational policy of the state, the legislature created a special commission with Senator Ralph C. Mahar as chairman. Subsequently a sub-committee was appointed to be especially concerned with the university issue and Hugh P. Baker was appointed as chairman. (Other members of this group were Fannie M. Buzzell of Hudson, John R. Fausey of Springfield, and Stanislaus G. Wondolowski of Worcester.) In December 1946 the sub-committee placed the cause of a university in Amherst squarely before the public in a hearing which received much attention from the newspapers. At the hearing, Professors Van Meter and Rand presented the views of the faculty, who were nearly unanimous in support of the idea. Ralph Taber, an active alumnus and also member of the Board of Trustees, pointed to the disturbing fact that Massachusetts stood near the bottom of the list of states in per capita spending on public higher education. Baker's committee submitted a report to the commission which urged the development of the state college into a university of Massachusetts. "To merely change the name of the college to university does not appear to be an adequate measure. . . . A program of expansion commensurate with university status and the needs of the state" should be provided.[21]

Interest in the university issue ran high in the spring of 1947, and the legislature seemed prepared to act. In each session since 1945 there had been at least half a dozen bills to create a university either in Amherst or elsewhere. (The C. I. O. was now urging that the university be located in the Boston metropolitan area.) Senator Mahar sponsored a new bill as a result of the recom-

mendation of the sub-committee, and the hearings attracted the interest of many segments of the state. Supporters who appeared represented many diverse organizations such as the State Grange, Farm Bureau Federation, American Legion, Veterans of Foreign Wars, and the Holyoke Central Labor Union. On the campus this cause aroused more enthusiasm than did football. Bonfire pep rallies stirred undergraduates to action and a student committee was formed with Michael Donahue ('47) as its chairman. Tag sales raised funds for the preparation of posters and the publication of pamphlets. The students made a major effort by mail to communicate their attitude to all members of the legislative bodies. The student committee also appeared at the hearings on the bill, with Margaret Parsons, Gordon Smith, and Bradford Morton, (all '47) lending their support to the cause.

The bill passed and was signed into law on May 6 by Governor Robert A. Bradford. An included clause assured the graduates in June of a degree from the University of Massachusetts. After eighty years as a college the institution at Amherst became a university. Massachusetts finally had a university, though a different one from that which had been proposed so long ago by Governor Andrew.

11

The University

1947-1962

The transition from college to university, which was signaled by the change of name in 1947, was to be a process that would not be completed for many years to come. The broadening of scope would require new organization, new buildings, expansion of curriculum, and increase of staff. Its new purpose committed the institution to growth — in short, to a new destiny in the system of higher education in the Commonwealth.

Ill-health forced President Baker into early retirement in 1947. The mantle of leadership passed to Ralph A. Van Meter, who had served as dean of the military programs during the war and as acting president during the illness of the president. Van Meter, a native of Ohio, had been appointed to the extension service as an horticulturist immediately following his graduation from Ohio State University in 1917. Except for brief periods of leave for military service and graduate study, he gave his entire life to the Amherst institution. After World War I he had been transferred to the teaching staff and rose rapidly, becoming head of the department of pomology by 1923, and head of the division of horticulture in 1932. Experienced as administrator, teacher, and researcher, he had

earned the respect and confidence of the trustees and of the entire staff. Leadership came naturally to this imposing figure — tall, straight, and broad of shoulder. Signs of strength of character were in his face, and in his eye a warm twinkle reflected his charm and humanity. And yet Van Meter did not seek positions of high authority. His belief in the role of the university led him to accept the presidential responsibilities at the most challenging moment in the history of the institution.

In choosing Ralph Van Meter as the leader to develop the University the trustees had acted wisely. His vision of American democracy included higher education for the common man, education of quality. "Admiration for people who can do things well is an outstanding characteristic of the American people. The Armed Forces in World War II reinforced the American belief that a college education greatly increases the ability of an individual to go on to high accomplishment," he wrote in 1952. "This tremendous confidence of the American people in the value of a college education, and the great sacrifices that parents often make to keep their children in college, throw a new responsibility on those who guide and direct our institutions of higher education. Somehow we must meet this challenge."[1] To this task the president dedicated his fullest efforts.

Among the major problems confronting the new president was to transform a college administration into a university one. This involved creating some new positions and coming to new definitions of responsibility for certain old positions. Connected with all this was the task of replacing a large number of administration personnel who reached the age of retirement. For nearly thirty years the College had enjoyed continuous service in almost every post except that of president. Retirements now came in a flood. In 1950 Willard A. Munson, director of the extension service, and Frederick J. Sievers, director of the experiment station and of the graduate school, both retired. They were followed in quick succession by Basil Wood, librarian, Robert Hawley, treasurer, William L. Machmer, dean of the lower division, and Roland H. Verbeck, director of the Stockbridge School.

In replacing these executives, Van Meter took the opportunity to effect a partial reorganization. The duties of the treasurer, which in the past had encompassed all financial and business operations of the college, were divided between two officers when the new position of business manager was created. Kenneth W. Johnson, recently dean of Champlain College in New York where he had gained valuable experience in facing the problems of higher education in the post-war era, became the new treasurer. Hobart H. Ludden was appointed business manager, relieving the treasurer of responsibility for operation of plant, the college store, and the boarding halls.

A second significant development was the creation of the position of provost of the university. For this position Van Meter selected in 1953 Jean Paul Mather, who had received his education and teaching experience in economics and statistics at the Colorado School of Mines, the University of Denver, and Princeton University. He brought to the University of Massachusetts the added experience of a staff associate of the American Council on Education, and also of an adviser to a special Massachusetts tax commission. The new provost was barely settled in his chair before he was made acting president because of the illness of President Van Meter.

In nearly every other office of the administration new faces made their appearance following World War II. The only exceptions were James W. Burke, who had served as secretary since 1940, and Marshall O. Lanphear, who continued his double duty as admissions officer and registrar. To head the library in the important years of growth which lay ahead, the university selected Hugh Montgomery, a librarian at the Littauer Library of Harvard University. To Gilbert L. Woodside, veteran teacher and head of the department of zoology, fell the responsibility of developing the graduate school, which would be an increasingly important phase of the university's work. Completing the administrative staff were Helen Curtis, who had been appointed to the office of dean of women when Edna L. Skinner had retired in 1946, and Robert S. Hopkins, Jr., appointed dean of men in 1948.

Planning the organization and development of a university under the conditions of 1947 was difficult. The administration was constantly occupied with emergency measures in waging an academic "Battle of the Bulge" that year when veterans returned en masse. "Since the expansion of the university started in 1946," wrote Van Meter in his report of 1948, "our central efforts have been directed to the sound planning of classrooms, dormitories and other facilities to meet both the emergency needs of the veterans and the long-range needs of qualified Massachusetts youth for higher education."[2]

In his inaugural address, the president had announced his aim of establishing a strong college of arts and sciences surrounded by professional schools and equipped with a well-developed graduate school. The first step contemplated the merging of the divisions of liberal arts and sciences in one unit, and those of agriculture and horticulture in another. Separate schools of home economics, engineering, and business administration would complete the initial organization. Although he felt that other schools might someday develop, he was content to wait until their need should become apparent.

A strong college of agriculture seemed to the president to be a vital need of Massachusetts. Pointing to the fact that the agricultural industry of the state had a larger production than that of any other New England state, he recommended the merging of the schools of agriculture and horticulture into a single administrative unit.[3] Within a short time the union was effected, and Dale H. Sieling, an agricultural chemist who had succeeded Walter S. Eisenmenger as head of the agronomy department, became its dean.

All phases of university service to agriculture — extension, research, and instruction — were united under the dean's administration. In the extension service, veteran James W. Dayton succeeded Munson as its director. This cooperative organization, although it operated in a state which had become heavily industrialized and urban, nevertheless found increasing calls for its services in the rural and semi-rural areas which remained in Massachusetts. The

responsibility for the experiment station fell directly to Dean Sieling. Its program of research was expanding to deal with many new problems in agriculture and the food industry generally. Henry Van Roekel's laboratory achieved an international reputation for its research in poultry disease problems; and other problems, such as the elm tree disease and control of various insect pests, along with increasing demands for research in the field of public health and agricultural marketing, brought added challenge to the station's staff. The Stockbridge School of Agriculture, now directed by Fred P. Jeffrey, served an increasing number of students who desired courses in practical agriculture. Enrollment rose from 280 in 1940 to 438 by 1950. The addition to the curriculum of a course in food management had helped to make the school useful to a wider circle of students.

Under its new leaders the College of Agriculture proceeded in the 1950's to reorganize and expand its work. Experiencing almost a complete change of department heads because of retirements, it also shifted its operational program to utilize its personnel interchangeably between instruction, research, and entension services.[4] Development of the instructional program occurred simultaneously. A four-year food management course and a four-year fish technology course were initiated. An intensive photogrammetry course was started in the forestry department. In 1953 the college was responsible for the agricultural education of some 700 students and stood 16th among 50 land-grant colleges in the total enrollment in agriculture.[5]

The process of unifying the college of arts and sciences was to be a much slower one, held up in part by the delay of the legislature in creating a dean's position. Although the trustees had authorized the merger of the liberal arts and the science divisions as early as 1949, the merger was not finally achieved until the fall of 1955 when Fred V. Cahill, Jr., became the first dean of the College of Arts and Sciences. In the interim the School of Science was guided by entomologist Charles P. Alexander, who succeeded Clarence E. Gordon in 1946, and later by Walter S. Ritchie, head of the chemistry department. The School of Liberal

Arts, following the retirement of A. A. Mackimmie in 1948, was led by Frank Prentice Rand, the head of the English department.

During this transition period, both schools continued to strengthen their offerings, rebuild their staffs as retirement took out familiar faces, and expand to meet the ever-increasing flow of new students. Separate departments of zoology and geology were established in 1946, of education and psychology in 1947. Four years later the department of sociology was separated from history, and in 1954 the government department also was established as a separate entity. Expansion also induced the process of academic fission in the largest department, languages and literature. Within a short time its program was redistributed among five different departments: English, German, romance languages, fine arts, and speech. The study of foreign languages attracted rapidly increasing numbers of students in the post-war period. German became a more popular study, and instruction in both Russian and Italian were added to the curriculum.[6] Although courses in speech had been offered at the University from its earliest days, the program had been confined primarily to declamation and debating. During the 1950's the department added dramatic art, radio and television programming, and courses in speech therapy.[7]

World War II had opened the doors of the College to women even more than had the first war. Large numbers were admitted, and in the post-war era of the University, the trend toward higher education for women continued undiminished.[8] Although the majority of these students turned to the arts and sciences for their training, many were interested in the School of Home Economics. Under Edna L. Skinner, who was its leader from 1919 to 1946, this branch of the College had experienced slow growth and concentrated its efforts largely upon the aspects of homemaking which had had such strong appeal to Kenyon L. Butterfield. Instruction in foods, clothing, and textiles dominated the curriculum. In the University era, this department was established as an independent school directed by Helen S. Mitchell. Aided by the untiring efforts of the Advisory Women's Council, the school had been successful in obtaining a modern building in 1946. Under Dean Mitchell, a

research chemist, emphasis was given to basic research and teaching in foods and nutrition. A limited program in child development also added a new note in the preparation of the young women for home life.

While the University underwent this reorganization and development of its older segments, a greater transformation resulted from the creation of new divisions of engineering, business administration, and nursing. Also developing, but not reaching the status of schools until after the retirement of President Van Meter, were programs in education and physical education.

Although training in engineering had been clearly implied in the Morrill Act, and was taught in most of the land-grant colleges, only a very limited program had been adopted by Massachusetts. Confining its scope to purely agricultural purposes, the College had restricted its courses in engineering to surveying and the construction of roads and bridges — practical skills which might find frequent employment in the routine of any farmer. These courses, given in the mathematics department, constituted the only attention given to engineering for almost fifty years. In 1915, a department of rural engineering was established in the division of agriculture when Christian I. Gunness introduced courses in farm structures and farm machinery. Despite a growing demand in the 1920's and 1930's that the state offer more extensive training in engineering, the College had responded only weakly. Not until 1938 was any effort made to satisfy this demand. In that year an independent department of engineering was created by combining the two existing groups. Professor Gunness and his group in agricultural engineering offered six specialized courses, and George A. Marston and John D. Swenson brought to the new department a program of eighteen courses in general engineering which had grown up in the department of mathematics. Subjects such as applied mechanics, kinetics, and hydraulics were new ones which had been developed by Marston, a graduate of the Worcester Polytechnic Institute. It took another World War to bring to Massachusetts a full-fledged program such as had been developed in other land-grant colleges and universities at an early date.

The return of the veteran to pursue his interrupted education resulted in an intense demand for engineering training throughout the country, and existing facilities were inadequate to supply this training. Educational leaders such as President Conant of Harvard University felt that only the public-supported institutions could expand sufficiently to meet the need. For Massachusetts such expansion called for herculean efforts.[9] The decision was made in 1946 to develop immediately a curriculum of basic studies in engineering as well as in business administration. During the academic year 1946-47 a curriculum for a complete school of engineering was outlined, new facilities were planned and presented to the legislature for action, and recruiting of staff initiated. Under George A. Marston, who was placed in charge because of the ill health of Christian Gunness, the program moved rapidly. In June 1947, the trustees created the school of engineering, adding to the two existing programs in agricultural and general engineering new ones in chemical, electrical, and mechanical engineering. At the same time favorable action of the legislature enabled the University to begin construction of a set of buildings for the new school. Appropriation was made in 1947 for an engineering laboratory; in 1948 for a laboratory for mechanical engineering as well as a main building for electrical and metallurgical laboratories.

The organization of the engineering school was completed with remarkable dispatch, and the school was ready when the veterans began to transfer from Fort Devens. For chemical engineering a special program of thirteen courses was developed within the chemistry department. (Students entering this program had to be crowded into the Goessmann Laboratory when the temporary building being erected for their use burned to the ground.) Rural engineering, renamed agricultural, was established as an independent department under Herbert N. Stapleton in 1948, and offered eleven courses. Dean Marston took personal charge of civil engineering. He brought to the campus an able staff which offered twenty-seven different courses in this discipline. The areas of engineering which were newest to the University — electrical and mechanical — were started on a broad basis. Robert R. Brown

had a staff of ten experts in electrical engineering, and Maurice E. Bates organized a group of eleven for mechanical. Thus the School of Engineering assembled a highly competent staff, and the curriculum which it established was one of superior standards. By 1950 these programs had all been accredited by the Engineer's Council for Professional Development, and a program of graduate studies had been announced. In the same year the newly organized Engineering Research Institute stood ready to offer effective research services to the industries of Massachusetts.[10]

Nothing that had happened on the Massachusetts campus since the year of 1867 could quite match the achievement in launching this successful venture. Although forced to start its program with war surplus equipment in the limited quarters of the old engineering shop, and with classes in borrowed space in Stockbridge Hall and other classroom buildings, the school nevertheless faced its task aggressively. By the fall of 1949 there were over 580 students enrolled and 231 were graduated in the following June. In that year the electrical wing of the main building was occupied and others were under construction. Within six years from its initiation the school had completed its initial building program and was graduating over one hundred trained engineers each year.

The decision to create a university had led to another innovation which was probably overdue, the introduction of a school of business administration. Although other land-grant colleges had introduced such programs at an early date — the University of Vermont had announced its first program in 1899 — the rural tradition in Massachusetts somehow had precluded the development of a business curriculum.[11] Only in the area of agricultural marketing and transportation had the college ventured into commercial training.

President Baker had turned to the department of economics in 1946 for the preparation of plans for a new school of business. Action was prompt. In June the trustees approved a curriculum, authorized the awarding of a degree, and appointed Philip L. Gamble as acting head of the new department of business administration.

This program developed nearly as rapidly as did that in

engineering. Twenty-two freshmen enrolled in September 1946, taking for the most part a course of study which was common for all first-year students of the University. By the fall of 1948, the department had a staff of nine men and was offering curricula in general business, accounting, and industrial administration. By 1950 it was officially designated as the school of business administration, and Milo Kimball became the first dean in 1952. Harold E. Hardy, Stanley Vance, Richard M. Colwell, and Harold W. Smart played important roles in the expansion of the major curricula to include marketing, merchandising, and finance. The program was meeting with enthusiastic response; by 1954 there were over 550 undergraduate students enrolled, including 29 women. This total was sixty percent larger than the enrollment in the College of Agriculture. In the same year the school established central office quarters in Draper Hall and inaugurated its first graduate program.

In three other areas, education, nursing, and physical education, changes were occurring which would eventually produce new schools. The training of teachers had been regarded as a major function of state institutions of higher learning since the days of Theodore Sedgwick and Horace Mann, but the function developed at this institution only belatedly. Students usually prepared for teaching of elementary grades in the state's normal schools; for secondary school teaching, a general college course, without emphasis upon teaching methods, had long been considered to be adequate preparation. It was not until the arrival of President Butterfield that Massachusetts took its first steps toward introducing teacher-training courses, and these were limited to the preparation of teachers of agriculture. Under Professor Hart the basic courses found a ready acceptance by students who were looking more and more to education as a profession.

Expansion of the scope of this program to include training for teaching subjects other than agriculture came in the early twenties. The way had been opened in 1918 when the state of Massachusetts, in response to the Smith-Hughes Act of the Federal government, created on the Amherst campus a special office for supervising the training of teachers for agricultural schools. A

four-year program organized by Professor Franklin E. Heald was included in the offerings of the department of education.[12] Although Professor Hart, soon to retire as head of that department, made no change in the titles of his courses, it was clear that the training would take on a new orientation. Under Winthrop E. Welles and Harry N. Glick, who joined the department on Hart's retirement in 1923, a new array of courses was introduced. Welles offered work in teaching methods, curriculum arrangements, and practice teaching — which was carried out in nearby schools. Glick introduced an initial program in psychology. The department continued this dual function, strengthening both phases of its program in the thirties by the appointment of Albert W. Purvis and Claude C. Neet, but continuing to concentrate on the training of high school teachers.

Following World War II the teacher training program was again revised, this time to include the elementary schools in its scope. Suddenly the United States had become aware of great deficiencies in its national education system, and alarmed at the prospect of thousands of new students for whom there might be no adequately trained teachers. In 1948 University President Van Meter charged his department of education to prepare a program commensurate with the needs of Massachusetts. He also created a special faculty committee, with Marshall O. Lanphear as chairman, to analyze the advisability of creating a school of education and also a school of physical education.

The department of education was ready to move promptly into a full teacher training program as the schools of engineering and of business were doing in their fields. But the administrative officers of the University were reluctant. Lanphear's committee found that a need existed for both of the schools which it had studied, but cautioned against hasty action.[13] Dean Machmer felt that there were other areas that needed strengthening before either of these schools should be developed. Accordingly, the curriculum for training elementary school teachers was postponed, and the department contented itself by strengthening its existing program by introducing the "block" system in 1950. Under this arrangement

students who wished to prepare for secondary school training were to take a limited program of eighteen semester hours of work in the department of education. Most of this was to be concentrated into one semester in the senior year to facilitate the process of practice teaching in the public schools of neighboring communities.[14]

The critical shortage of teachers continued to challenge the University to broaden its training program, and shortly a change of policy was announced. A new undergraduate curriculum for future elementary school teachers was inaugurated in 1953 with Professor D. J. McCarthy as advisor.

A second significant development was the expansion of the department's graduate studies. For many years it had been conducting a master's program of studies in educational methods and school administration. In 1954 this was revised to give more emphasis to training in subject matter in place of extended examination of methods. Students who had acquired the needed educational techniques as undergraduates were directed to pursue advanced studies in subject matter. For those who had had no course work in educational methods, a new curriculum leading to the degree of Master of Arts in teaching was instituted. In this program the graduate student acquired the needed methods but also took additional courses in his subject field. Following these developments, the department moved ahead to become an independent school in 1956. Albert W. Purvis, a veteran of twenty years service to the University, became its first dean, and continued planning for the growth of his school. That it was meeting a much-felt need is seen in the enrollment of 231 undergraduates in elementary school training alone by 1956.

Interested groups of people throughout the state urged the need for other schools in the University. Almost every year after World War II bills were submitted to the legislature looking to the establishment of schools of medicine, dentistry, pharmacy, and law. However, the trustees were reluctant to encourage such developments without proof of the need for such additional services and assurance from the Commonwealth that it was prepared to support

schools which would do it credit. Concern over increasing budgets in the state was intensified by the outbreak of war in Korea, and moderation in the expansion of the University appeared to be desired. President Van Meter therefore advised against expanding into still other educational areas, believing that sound policy pointed to the development of departments which were well established and had years of successful operation to their credit.[15] Accordingly only two other schools of the University were developed, those of physical education and nursing.

The physical education program on the Massachusetts campus was largely the result of the efforts of three people: Curry S. Hicks, Mrs. Hicks, and Harold M. Gore. Hicks, who had taken over the department from Percy L. Reynolds in 1911, had built a program which stressed the promotion of physical fitness through exercise in group play. Instruction had aimed at the development of skills which would be employed not only during the days of college but also in the period of adulthood to follow. During the thirties the department had added one very limited program for the training of coaches and teachers of physical education for the secondary schools. Hicks also directed the athletic program and the student health services. Holding fast to the belief that collegiate athletics should avoid the dangers of over-emphasis, the director had continued schedules of intercollegiate competition with the small colleges of New England as in the days of Butterfield.

Expansion of the physical education program started slowly in the 1940's and moved ahead rapidly after World War II. In 1940 an administration reorganization created four departments where only one had existed before. Harold M. Gore was made head of the department of physical education for men, and Miss Ruth Totman, of the department for women. Dr. Ernest J. Radcliffe, who had been the college physician since 1930, headed the new department of student health, and Curry Hicks, division head, was also director of athletics. Added courses for men, in direction of games, playground activities, and other youth work, provided the basis for a major concentration in this field.

During the 1950's the program of this division developed

significantly, and in 1959 it was reorganized as the School of Physical Education. The retirement of Curry Hicks (1949) and Harold "Kid" Gore (1953) brought in Warren P. McGuirk, as the director and Sidney W. Kauffman as the head of the program for men. Curriculum changes begun in 1954 modernized the program of teacher training and attracted a larger number of students. The development of a comparable program for women had to await provision of adequate facilities. When at last the women's physical educational building was completed in 1959, Professor Totman introduced a major curriculum, and the school had reached a balance.

One other program was added to the University in the fifties, the School of Nursing. As early as 1948 the attention of the administration had been called to the need for nurses trained for supervisory work. After two years study of the problem, Dean Machmer in 1950 brought in a report favoring the establishment of a five-year program in the University. The first two years would be made up of the basic work in the arts and sciences. Two more years would be spent in clinical instruction at nearby hospitals, and a fifth year, on the campus, would allow for new advanced courses to complete the training. In 1953 Miss Mary A. Maher was appointed head of a newly formed nursing division, and the first class was organized in September 1954. Five sophomore women transferred from the School of Liberal Arts to form this first class, and thirteen entering freshmen made the nucleus of a second class. Agreements were reached with the nearby Springfield Hospital for the use of clinical facilities during the following summer session. At the Commencement exercises in June 1959 the University conferred its first degrees in nursing upon five graduates.

Late in April 1953, President Ralph Van Meter, then serving in his seventh year, suffered a stroke and was hospitalized. Although he recovered his health sufficiently to return to his office for a brief time, the task of continuing to run a university proved to be too exacting and he retired in 1954. Much had been accomplished toward achieving the university which he had visualized. He did not primarily aim to attract large numbers of students or to

found many new schools. He did recognize, however, the expanded social role of the University of Massachusetts, and he sought to build a sound institution that would be a credit to the state. Under him, planning for a substantial future growth was begun.

To Jean Paul Mather, who succeeded Van Meter in the president's chair, the first and greatest problem for the University of Massachusetts was not for more schools, but more schoolrooms.

> The obvious need for developing greater opportunities in public higher education for the tidal wave of youngsters now coming up through the elementary and secondary schools of Massachusetts is a real challenge. The very preponderance of private colleges and universities in the state, all committed to a program of limited enrollment, makes the challenge here the greatest, I believe, in the country.[16]

The active young president welcomed the challenge which he found in the census figures of school population in Massachusetts. In his previous position as provost, the president had already become aware of some of the dimensions of this problem, and preliminary decisions had even then been made. From the inaugural platform he announced that plans were already well advanced to enlarge the University, which then had 4,400 students, to accommodate 10,000 students by 1965. Such growth, he added, was feasible and required, if the state university was to continue to admit the same percentage of Massachusetts high school graduates that it had been accommodating in the past. No provision was included in this plan for absorbing any backlog of students who might be denied admission to private colleges and universities because of fixed limits. The president warned of problems — the problem of maintaining quality, of preserving balance and perspective in developing the schools, and of maintaining the respect, friendship, and cooperation of sister institutions "without developing the arrogance or the selfishness that often comes of size." The most important single objective of the University, he felt, should be the development of inspired undergraduate teaching. Adequate buildings and facilities he regarded as important for the inspiration of teachers, but of greater significance were adequate salaries to

attract the best teachers. "It will profit us nothing if we build many new buildings fully equipped with modern gadgets and then fill these shiny new tin cans with half-baked beans . . . staff or students."[17]

The president turned his full energy to the task of expanding the facilities of the University to meet the challenge of which he had warned. To the important post of provost he brought a young man of imagination, Shannon McCune. The new provost, a geographer by training and experience, turned to the task of developing the academic program with vim and enthusiasm. By means of the bi-weekly meetings of the Provost's Administrative Council, and the weekly sessions of the Student Personnel Administrative Council, he worked effectively to coordinate both faculty and student leadership.[18]

Building activity was perennial in the post-war period; signs of construction, new structures, heating tunnels, and roads were everywhere. Following the erection of temporary housing and classrooms immediately after the war, the erection of permanent structures had begun. In rapid succession during Van Meter's administration came Skinner Hall (1947), Hasbrouck Laboratory (1949), the Engineering Annex (1948), Gunness Engineering Laboratory (1948), the Engineering Building (1950-55), the Paige Laboratory (1950), the Dining Commons (1954), and a doubling of the power plant which pushed steam line tentacles everywhere. The Commonwealth had redeemed its pledge to provide the facilities for the proper education of the veteran. And the Alumni corporation had met the challenge for housing, erecting by 1954 nine new dormitories and a faculty apartment house.

Under President Mather, construction and planning received earnest attention. Using funds supplied by the State Division of Building Construction, the University developed a "Master Plan" for campus expansion over ten years.[19] This Master Plan was a vast dream and a bold one. On the northeast sector of the campus, near where Stockbridge Hall, the Paige Laboratory, and the Engineering Buildings stood, would be placed new facilities for the college of agriculture. Buildings for animal science, food tech-

nology, conservation, and vegetable gardening would be added to the existing group.

To the southwest the campus was to be expanded to have a wholly new athletic plant — a huge main building, stadium, field house, and playing fields. The old athletic field and parking lot were to become the site of a school of business administration, a university administration building, and another group of men's dormitories and apartments for students and faculty. For the southeast corner of the new campus was planned a new dining commons, chapel, auditorium, and additional dormitories. The northeast sector of the campus was designated to include dormitories and recreational facilities for women, a school of education, and residential areas for sororities and fraternities. This inclusive plan, which called for the addition of over 300 acres to the 821 then in use, promised to transform the spacious campus into a complex of red brick structures, broad lawns, parking lots, and tree-lined roads.

The need for prompt action to implement this plan was urged upon the legislature by the president and trustees, and that body responded generously. In 1954 the appropriation, exceeding $10,000,000, was $2,783,720 larger than the previous record budget of 1952.[20] In the next four years the state appropriated $26,239,000 for instructional buildings. The addition of $409,375 in Federal and private grants, and $11,200,000 in funds raised for residential and recreational buildings by the University of Massachusetts Building Association, brought the 1954-1958 total for new construction to $37,848,375.[21] The task of supervising this rapidly growing plant was placed in the capable hands of engineers Harry S. Hugill and Lionel G. David, and superintendent Theodore A. Martineau.

The colony of men's dormitories expanded on the eastern slope of the campus behind Fernald Hall. This group, which had been started with Butterfield House in 1946, grew to include nine by 1961, when two more were under construction.[22]

Meanwhile the northeast corner of the slope was developed into a women's campus. Across the street from Abigail Adams House arose a group of dormitories. Ten were constructed there

between 1935 and 1960.[23] The land directly north of this complex, which had been the site of experimental orchards until 1955, was developed into a women's recreational area. Here was constructed a large, attractively designed athletic building, containing a spacious gymnasium, swimming pool, and other facilities. Surrounding it were placed carefully graded lawns to be used for playing fields, and a group of tennis courts.

A spacious dining commons was built in 1954, replacing the outgrown Draper Hall, and in 1961 an addition to the commons doubled its capacity. Dining facilities had also been provided in Butterfield (1946) and Greenough (1946) dormitories. In 1960 the headquarters of the R.O.T.C. departments were transferred to Dickinson Hall, a fine new building named in honor of Spanish-American War hero Captain Walter Mason Dickinson ('77). Student health requirements were not neglected. In 1961 an infirmary building was occupied, replacing the meager facilities which had first been erected in 1914 but not enlarged since 1934. A broader student health service program was inaugurated in 1960 with Dr. Robert W. Gage ('38) as director. Provisions for health education and physical and psychiatric therapy were included in this new service for the campus.[24]

The building which inaugurated perhaps the greatest change in campus life was the Student Union, erected (like the dormitories) on a self-liquidating basis and opened in February 1957. This attractive and spacious facility quickly became a humming center of student activities, lectures, concerts, art exhibits, and conventions of many kinds. The building has a handsome lobby and lounges, a cafeteria, areas for bowling, ping pong and other games. Provided also are rooms for publications, student government, music, and other activities, a large ballroom for dances, lectures, concerts, and motion pictures, and a post office, barber shop, and book store. Since its opening, the Student Union has been a major service affecting the campus life of students and staff alike. The general feeling about it is one of quiet pride, a feeling that arises from the good taste evident in its design and appointments, from the variety of its facilities, from the careful way in which it is main-

tained and run by Director William D. Scott and his staff.[25] One of its most important campus functions is carried out in the office of the Recognized Student Organizations. Here are supervised the fiscal operations of over one hundred student groups, ranging from the occasionally meeting departmental clubs to the more active dramatic and musical organizations and the campus newspaper and yearbook.

The construction of needed laboratories and classroom facilities was also progressing. In 1955 a landmark on the campus, North College — built in 1867 for a dormitory but used in recent years for office space — was razed and on its site was erected William L. Machmer Hall, a modern classroom-office building for use by several of the social science departments. There followed other much-needed construction.

The Goessmann chemistry laboratory was enlarged in 1959 to include an auditorium which was dedicated to Charles A. Peters, and facilities for research and teaching. In 1961 an electronic computer center was established in this building. On the northwest corner of the campus, once occupied by poultry yards and experimental garden plots, the first of the group of buildings called for in the Master Plan for the College of Agriculture was erected in 1959. Named for Nathaniel Bowditch, trustee with many years of faithful service, this building houses the department of olericulture. Nearby an essential facility, the new maintenance building, was completed in 1960. Now under construction in this group is the conservation building for the department of forestry.

Other facilities of major significance to the University, and particularly to the College of Arts and Sciences, included the large addition to Goodell Library (1960), the Joseph W. Bartlett Hall (1960) erected just south of the library where the Drill Hall formerly stood, and the Justin S. Morrill Science Center (1960-62), which emerged in sections beside the row of older science laboratories built in the first decade of the century. The opening of the library addition more than doubled the usable space for study and also extensively increased stack space available for future holdings. In Bartlett Hall the University acquired a center for studies in the

humanities and psychology. Included in its equipment was an 80-booth language laboratory, speech therapy center, and laboratories for experimental psychology. The Morrill Science Center was constructed to house the departments of botany, geology, microbiology, nursing, public health, and zoology. Benefiting by large grants provided for scientific research by the Federal government, these laboratories will contain an electron microscope and other equipment vital to science teaching and research.

Newest in the list of added facilities is the School of Education building, erected on recently acquired property north of the women's gymnasium. Provided in this large segmented structure are not only the needed offices, classrooms, and library for the teaching of university students, but also a laboratory school for 300 pupils. This school, named the Mark's Meadow School and operated under an agreement between the officials of the town of Amherst and the University, was built to make possible a teaching and research program which will benefit both.

Although President Mather had felt forced to concentrate much of his attention immediately upon the material needs of the University, he did not neglect facing problems basic to the development of a productive educational organization. The two matters which he felt required forceful action were the problem of the authority of the trustees in the management of the professional staff, and the problem of attaining a salary scale adequate to recruit and retain a faculty of quality in a highly competitive academic market. To the solution of both the president devoted his energetic attention.

Legislation was enacted in 1953 and 1954 which had transferred the authority to fix faculty and other salaries from the Board of Trustees to the Division of Personnel and Standardization of the state government.[26] In 1954, Mather took steps to have introduced into the legislature a bill seeking to assign the trustees broad powers over the appointment of staff, the assignment of rank and duties, and the determination of salaries within the limits which were prescribed by the legislature.

The effort to obtain passage of the "Freedom Bill," as President

Mather identified the measure, attracted widespread attention to the University and its problems. The president made many appearances before clubs and other groups throughout the state, speaking in favor of the bill and discussing the higher-education needs of the young people of Massachusetts in the coming years. The local and the national press was interested in and generally sympathetic to the cause of the University. Political pressures opposed to the passage of the bill were strong, however, and in the end a compromise measure was adopted. This gave to the University complete authority over appointments to the professional staff, including the right to hire above the minimum salary in each grade as established by the state, and specified that personnel actions by trustees should not be subject to the control or approval of the Commission on Administration and Finances.

The measure, signed into law by Governor Christian A. Herter on July 27, was gratifying and was widely hailed as having major significance for public supported higher education everywhere. Two weeks later the legislature provided for the implementation of this legislation by enacting an appropriation adequate to enable the trustees to hire new staff members above the minimum salary. The University now was in the position to compete successfully for the services of outstanding scholars. But the issue of the general level of salaries, one which concerned all academic administrators of the country, could not be solved by a single act. In 1956 and 1957 the state was involved in a comprehensive revision of its entire personnel classification system and salary scale. The resulting legislation of 1957 did much to improve the status of the University staff, but did not solve the problem.

In the spring of 1959 the University again sought legislation to achieve reclassification of its professional staff within the state system. Once more the president launched a vigorous campaign of speaking to bring the issue to the attention of the public. Armed with facts and figures, he argued untiringly for the provision of a salary scale for the University comparable to those of other educational institutions. Defeat of his campaign seemed assured when the bill, which had previously passed the House, failed to pass the

Senate in August. This event brought from the president an announcement of his resignation. Although a salary reclassification bill was later passed, it was a compromise that failed to provide the full measure of support which the president felt to be required, and he was not persuaded to change his mind and stay.

When Jean Paul Mather left the campus in the spring of 1960 to take up a new position as director of the American College Testing Service in Iowa, he could look back upon a scene that was greatly changed from that which had greeted his eyes when he first came as provost in 1953. New buildings dotted the central campus which had lost much of its air of rural spaciousness. Lovely trees and shrubs, and acres of lawns, kept clean and neatly trimmed by George Mellen's grounds department, played their roles in the beautiful landscaping provided by the Campus Planning Council under Lyle Blundell and Raymond Otto. He could also note with pride the larger numbers of students threading their way along the walks to new classrooms and laboratories, there to meet with many a professor or instructor who was equally new to this scene. But he probably took greatest satisfaction in the knowledge that a new interest in the University of Massachusetts had been aroused in the Commonwealth, and indeed, throughout the United States. Only continuing public interest and pride could assure its future.

The fifteenth president, John William Lederle, took up his duties in September 1960. Born and educated in Michigan, Dr. Lederle had entered the legal profession but shortly became interested in collegiate teaching. After three years in the political science department of Brown University, he returned to his Alma Mater, the University of Michigan. While he was serving there, his academic experience as professor and director of the University's Institute of Public Administration was buttressed with practical experience gained by working with the Michigan state government and several departments of the Federal government. Within the state he served as comptroller, head of the Department of Administration, and secretary to a state commission on intergovernmental relations. His experience in national government in-

cluded service under the United States Point Four Technical Assistance Program as the organizer and first director of the Institute of Public Administration of the University of the Philippines. He also was a consultant to two important advisory committees of the United States Senate.[27]

The new president, a cordial and dignified man, brought to his task a broad philosophy of public higher education. "We are pledged to the democratic principle of the right of every individual, regardless of race, religion, or economic background, to that amount and kind of education of which he is capable and for which he has the desire and will," he stated in his inaugural address.[28] For President Lederle the trend of larger numbers of high school graduates to seek college education marked "a great turning point in the development of American education."[29] This trend, he felt, imposed large new responsibilities on all colleges and universities, but particularly upon the public institutions. "We have the demand of a democratic society to give each student all the education of which he is capable," he stated. "We have the equally insistent demand, for the well-being and advancement of a democratic society, to produce graduates of excellence for leadership in that society. . . . Increasingly we must be a great and continuing laboratory for testing out the limits of accommodation, for learning how to gain maximum constructive energy from the interplay between the demands of quantity and the need for quality."[30]

Applying his philosophy to the University of Massachusetts, the president suggested that although much might be borrowed from the examples of fellow state and private universities, nevertheless "the building of our own form of integrity, on native ground, must be our guiding principle and leading objective." He called upon the faculty for the continuation of good teaching and the pursuit of research. "As a university we have not only a responsibility to transmit knowledge, but a responsibility through research to advance the frontiers of knowledge." Every student was urged to put his best efforts into studies, not primarily to satisfy the professor, but to serve the long-range interests of both himself and the community. Pointing out that under his philosophy the Uni-

versity of Massachusetts could not possibly remain small, he called for understanding and vision on the part of faculty, students, and public. "I have come to feel that what we have here is potentially a giant. I do not mean merely a bricks and mortar giant, but a great public center for excellence in higher education in this region."[31]

The University of Massachusetts in 1960 was not a large institution, but it had during the last decade made many changes to broaden its scope and to point the way to future expansion. Its College of Arts and Sciences was surrounded by six other colleges and schools offering vocational curricula. A student body of 6500, and a resident faculty of 580 members seemed large by standards which Amherst people had held in the past. Not only had the resident college population grown, but the growing popularity of the campus as a center for the seminars and workshop activities of professional societies had brought increasing numbers of visitors. In 1961 approximately 20,000 persons attended meetings which dealt with subjects ranging from agriculture to public administration, education, and banking. Under the able handling of Harold C. Durgin, University conference coordinator, this rapidly increasing program of study activities (it increased three-fold from 1958 to 1961) was contributing much to the University's service to the state.

Manifestations of determination to be something better as well as bigger were evident on many sides. One of the most interesting was the efforts of the four neighboring institutions — Amherst College, Mount Holyoke College, Smith College, and the University — to find solutions to their problems by cooperation. Forming a Four-College Cooperative Committee, they made it possible for students of any one institution to enroll in certain courses at the others; an inter-campus bus service was established to transport them back and forth. Joint appointments of staff were made, particularly in specialized areas of instruction where the enrollment on any one campus was not heavy. One example of this was the creation of a joint department of astronomy made up of members of the faculties of the four colleges. In 1960 a Four-College Ph.D. degree program was instituted; it began with arrangements be-

tween the biology departments and was soon extended to the field of chemistry. Before the end of the year similar action was being planned in other areas, and at the University Commencement in June 1961, the first cooperative Ph.D. degree was conferred.

Three other projects in which the four colleges agreed to act collectively are the Hampshire Inter-Library Center, a radio facility for broadcasting educational programs (WFCR), and the publication of the *Massachusetts Review,* a quarterly which was established on the University campus in 1959.

The Hampshire Inter-Library Center, incorporated in 1951, provided a cooperative facility for the acquisition, storage and servicing of journals, documents, and reference sets, the duplication of which was unnecessary in the area of the four colleges. Economy effected in this manner helped to make important resources more easily accessible for research. The collection, numbering 18,000 volumes in 1959 and growing every year, was deposited in Goodell Library when that building was enlarged.

The establishment of an educational FM radio station was another project which grew out of the recommendations made by the Committee on Four College Cooperation in 1955. After considerable planning and preparation of broadcasting facilities on Mount Lincoln in Amherst, the station officially began operations on May 8, 1961. This important educational facility, which at the outset lacked many things to make the most of the cultural resources of the community, made up for this by establishing a link with an educational radio network extending south along the Atlantic seaboard as far as Washington, D. C.

The *Massachusetts Review* originated at the University through the efforts of the Alumni Long-Range Projects Committee under the guidance of Professor Frederick C. Ellert ('30), Sidney Kaplan, and Frederick S. Troy ('31). Devoted to literature, the arts, and public affairs, the *Massachusetts Review* attracted widespread attention and quickly established itself as one of the nation's best quarterlies. In becoming a Four-College project the magazine obtained financial support that would help assure continued high quality. And the Four-College Cooperative Committee, in provid-

ing the support, enlarged the concept of enrichment possible through joint action.[32]

From other quarters of the campus came further signs of intellectual activity. A new quarterly, the *Engineering Journal,* was started by the engineering students in 1957, and the *Massachusetts Collegian* increased its coverage of news, publishing three numbers each week. Lectures and concerts were presented in increasing number. America's famed poet, Robert Frost, read to a jam-packed ballroom almost every year, and distinguished lecturers such as Mrs. Eleanor Roosevelt, Pierre Mendès-France and Samuel Eliot Morison drew capacity audiences. Opportunities such as these were increased by various means. In 1960 the student body demonstrated its interest by taxing itself to establish an annual lecture series, the Massachusetts Assembly. In the same year the Associate Alumni initiated the War Memorial Lectureships. A third series was founded by friends and former students of Professor Frank Prentice Rand as a memorial in his honor on the occasion of his retirement after forty-six years of service as teacher, administrator, advisor, and friend of thousands of students. Still another means of bringing national figures to the campus resulted from the establishment of the Distinguished Professorship in Public Affairs by means of a grant from the Ford Foundation.

New efforts to enrich the educational opportunities of the undergraduates were continually being made. A broad program of counseling and guidance, initiated in the late fifties under William F. Field, was designed to achieve a more effective integration of student educational experiences. Students who passed tests covering basic subject matter were permitted to enroll in advanced courses. Further encouragement of the superior student was evident in the expanded honors program which was initiated in 1960. Directed by Professor Louis S. Greenbaum and the Honors Council, this program of interdisciplinary colloquia, which soon included students of all of the three lower classes, was added to the long-standing senior honors program.

A number of administrative changes occurred as the 1950's closed and the 1960's opened. Gilbert L. Woodside, dean of the

graduate school, became provost succeeding Shannon McCune who took up a UNESCO post in Paris. Himy B. Kirshen became dean of the School of Business Administration in 1957; and in, 1961, Dr. Marion A. Niederpruem was appointed dean of the School of Home Economics, Arless A. Spielman, dean of the College of Agriculture, and I. Moyer Hunsberger, dean of the College of Arts and Sciences. In the same year William F. Field was promoted to the new position of dean of students at the head of an enlarged Counseling and Guidance Office.

An event of major historical significance to the University was the enactment by the General Court of legislation to provide the institution's trustees with broader powers of fiscal self-management. For many years the University had experienced difficulties and delays arising from the imposition of centralized state controls over vital operations affecting the educational and research program. In recent years these problems had become greatly intensified because of the dynamically rapid growth within the University and increasing challenges from without.

President Lederle, speaking at a University convocation in September, 1961, declared that "the greatest breakthrough for the University of Massachusetts would be to have authority in its trustees commensurate with their responsibility."[33]

The breakthrough was to come in the following year shortly after the issuance of the report of the Special Commission on Budgetary Powers of the University of Massachusetts.[34] Supported vigorously by House Speaker John F. Thompson of Ludlow and Senate President John E. Powers of Boston, the Commission was a distinguished panel under the chairmanship of Senator Maurice A. Donahue of Holyoke, Majority Leader in the Senate and a vital force in the ultimate enactment of the legislation. Besides Senator Donahue, the Commission included Senator John E. Harrington, Jr., of Lowell; Senator Philip A. Graham of Hamilton; Representative Sumner Z. Kaplan of Brookline, a graduate of the University and Vice-Chairman of the Commission; Representative Gerard F. Doherty of Charlestown, House Chairman of the Joint Committee on Education; Representative Sidney Q. Curtiss of Sheffield,

House Minority Leader; Representative Allen McGuane of Greenfield; Representative James R. Nolen of Ware; Mrs. Bruce B. Benson of Amherst, President of the Massachusetts League of Women Voters; Dr. Mary I. Bunting, President of Radcliffe College; and Dr. George H. Ellis, President of the Federal Reserve Bank of Boston.

The Commission, in the report issued on January 24, 1962, recommended the delegation of more authority to the University in the following areas: management of personnel matters affecting the University's professional staff members; fiscal control; purchasing and printing; and staff travel. Noting that the expansion of the institution required authority for the administration to move with greater flexibility and speed in support of its developing educational and research programs, the Commission recommended that the University receive a significant measure of relief from centralized controls.

The Commission held that four fundamental and essential controls of the legislature over the use of appropriated funds are sufficient. These include: the broad area of policy determination, the power of appropriation, the requirement that budget requests be presented according to state regulations, and mandatory reporting on management and financial operations, including a complete post-audit of all University accounts by the State Auditor.

After receiving wide support from the Massachusetts public and strong backing from such organizations as the Massachusetts League of Women Voters, the bill filed on behalf of the University passed the House and Senate with substantial majorities, and on July 11, 1962, Governor John A. Volpe signed it into law. Credit for its enactment belonged to many persons. Among the most vigorous proponents were two distinguished lawmakers who, though they worked long and hard in this and many other University causes, did not live to see their work brought to fruition. Representative Edwin D. Gorman of Holyoke died of a heart ailment in July, 1961, and Representative Philip Whitmore of Sunderland, an outstanding alumnus of the University and member of its Board of Trustees, was killed in an automobile accident just three weeks prior to final

passage of the fiscal self-management law. Another strong advocate of this and other measures affecting the University — Senator Ralph C. Mahar of Orange — died a short time after passage of the legislation that he considered so vitally important to all of the young people of Massachusetts.

But these men, and all others who had labored for the University and its program, had helped to bring to a satisfactory conclusion a long history of effort by presidents, trustees, legislators and interested citizens to provide in Massachusetts a measure of the self-management authority which had long been the normal pattern at many other outstanding state universities.

Approaching the end of a century of growth, the University of Massachusetts found itself not only assessing its past achievements, but also deeply involved in planning its future course. History had witnessed a gradual evolution in the scope and objectives of the land-grant institution. The original conception that it be devoted primarily to the purposes of agricultural science had broadened to make it into a state college and finally into an expanding university. To the continuation of its expansion, as well as to its adaptation to the complex problems of the new era, President Lederle pledged his full support. Assurance that the University would move ahead without loss of time might be seen in the prompt renewal of the dormitory building program which had been halted in 1960. And confidence that the future would be carefully charted arose from the inception of new planning studies. While the Master Plan of 1956 was still far from complete, a new plan — one to extend well beyond the date of 1965 — was already under preparation. Discussions between University officials and the Town Planning Board concerned the possible expansion of the campus south towards Fearing Street. Provisions for the relocation of agricultural experimentation was made by the acquisition of a large new farm on the banks of the Connecticut River in South Deerfield. And before Professor Maxwell H. Goldberg, centennial director, could stage the opening event to celebrate this institution's first hundred years and to herald its second, he found himself appointed chairman of a new committee to draw long-range plans

for the academic development of the larger University of Massachusetts.

On the campus there was no sense of finality, but rather a pervasive mood of dedication to the larger tasks ahead. If Justin S. Morrill's Act of 1862 had served to guide the development of the first century, his words of 1887 seemed appropriate for the theme of the second: "I would have higher learning more widely disseminated."[35]

APPENDIX I
PRESIDENTS OF THE UNIVERSITY

Henry Flagg French,	1864-1866	Kenyon L. Butterfield,	1906-1924
Paul Ansel Chadbourne,	1866-1867	Edward M. Lewis,	1924-1927
William S. Clark,	1867-1879	Roscoe W. Thatcher,	1927-1933
Charles L. Flint	1879-1880	Hugh P. Baker,	1933-1947
Levi Stockbridge,	1880-1882	Ralph A. Van Meter,	1947-1954
Paul Ansel Chadbourne,	1882-1883	J. Paul Mather,	1954-1960
James C. Greenough,	1883-1886	John William Lederle,	1960-
Henry Hill Goodell,	1886-1905		

APPENDIX II
GOVERNORS OF MASSACHUSETTS SINCE 1861

John A. Andrew,	1861-1866	Eben S. Draper,	1909-1911
Alexander H. Bullock,	1866-1869	Eugene N. Foss,	1911-1914
William Claflin,	1869-1872	David I. Walsh,	1914-1916
William B. Washburn,	1872-1874	Samuel W. McCall,	1916-1919
William Gaston,	1875-1876	Calvin Coolidge,	1919-1921
Alexander H. Rice,	1876-1879	Channing H. Cox,	1921-1925
Thomas Talbot,	1879-1880	Alvin T. Fuller,	1925-1929
John Davis Long,	1880-1883	Frank G. Allen,	1929-1931
Benjamin F. Butler,	1883-1884	Joseph B. Ely,	1931-1935
George D. Robinson,	1884-1887	James M. Curley,	1935-1937
Oliver Ames,	1887-1890	Charles F. Hurley,	1937-1939
John Q. A. Brackett,	1890-1891	Leverett Saltonstall,	1939-1945
William E. Russell,	1891-1894	Maurice J. Tobin,	1945-1947
Frederick T. Greenhalge,	1894-1896	Robert F. Bradford,	1947-1949
Roger Wolcott,	1897-1900	Paul A. Dever,	1949-1953
W. Murray Crane,	1900-1903	Christian A. Herter,	1953-1957
John L. Bates,	1903-1905	Foster Furcolo,	1957-1961
William L. Douglas,	1905-1906	John A. Volpe,	1961-
Curtis Guild, Jr.,	1906-1909		

APPENDIX III
SECRETARIES OF THE MASSACHUSETTS BOARD OF EDUCATION

Joseph White,	1861-1877	Frank A. Hill,	1894-1903
John W. Dickinson,	1877-1894	George H. Martin,	1904-1909

COMMISSIONERS OF EDUCATION

David Snedden,	1909-1916	Julius E. Warren,	1943-1946
Payson Smith,	1916-1935	John J. Desmond, Jr.,	1946-1957
James G. Reardon,	1935-1938	Owen B. Kiernan,	1957-
Walter F. Downey,	1939-1943		

APPENDIX IV
SECRETARIES OF THE STATE BOARD OF AGRICULTURE

Charles L. Flint,	1852-1880	James W. Stockwell,	1899-1903
John E. Russell,	1880-1887	J. Lewis Ellsworth,	1903-1913
William R. Sessions,	1887-1899	Wilfred Wheeler,	1913-1918

COMMISSIONERS OF AGRICULTURE

Wilfred Wheeler,	1918-1919	Louis A. Webster,	1942-1945
Arthur W. Gilbert,	1919-1934	Frederick E. Cole,	1945-1948
Edgar G. Gillette,	1934-1935	John Chandler,	1948-1951
Howard H. Murphy,	1935-1937	Henry T. Broderick,	1951-1954
William Casey,	1937-1941	L. Roy Hawes,	1954-1957
Mark Hampton Galusha,	1941-1942	Charles H. McNamara,	1957-

APPENDIX V
TRUSTEES OF THE UNIVERSITY OF MASSACHUSETTS

John Brooks,	1863-1864	Daniel Needham,	1868-1895
Henry Colt,	1863-1888	John Cummings,	1872-1885
Charles G. Davis,	1863-1886	William Knowlton,	1872-1886
Allen W. Dodge,	1863-1878	Richard Goodman,	1876-1880
Dr. Nathan Durfee,	1863-1876	O. B. Hadwen,	1879-1886
John B. King,	1863-1864	Benjamin P. Ware,	1879-1886
Paoli Lathrop,	1863-1872	James S. Grinnell,	1878-1900
D. Waldo Lincoln,	1863-1872	James H. Demond,	1880-1909
George Marston,	1863-1878	George Noyes,	1880-1887
Charles C. Sewall,	1863-1877	William Wheeler,	1880-1882,
William S. Southworth,	1863-1865		1887-1928
Phineas Stedman,	1863-1890	Edward C. Choate,	1882-1885
William B. Washburn,	1863-1878	Thomas P. Root,	1885-1892
Henry L. Whiting,	1863-1887	William H. Bowker,	1885-1916
Marshall P. Wilder,	1863-1886	Arthur A. Brigham,	1885-1889
Henry F. Hills,	1865-1879	William R. Sessions,	1885-1887,
Joseph A. Pond,	1867-1867		1900-1905

Francis H. Appleton,	1886-1896
Joseph A. Harwood,	1886-1896
Elijah W. Wood,	1886-1904
Henry S. Hyde,	1887-1903
George A. Marden,	1888-1895
James Draper,	1889-1907
J. D. W. French,	1889-1900
Charles A. Gleason,	1889-1925
Merritt I. Wheeler,	1890-1907
Elmer D. Howe,	1893-1924
James W. Stockwell,	1899-1903
Samuel C. Damon,	1895-1909
Nathaniel I. Bowditch,	1896-1945
Charles L. Flint,	1896-1904
George H. Ellis,	1900-1934
Arthur G. Pollard,	1904-1915, 1916-1928
M. Fayette Dickinson,	1905-1913
Carroll D. Wright,	1906-1909
Frank Gerrett,	1907-1933
W. W. Rawson,	1907-1908
Davis R. Dewey,	1909-1939
Thomas L. Creeley,	1908-1910
Harold L. Frost,	1909-1938
Charles E. Ward,	1909-1914
Frank A. Hosmer,	1910-1918
George P. O'Donnell,	1913-1915
Edmund Mortimer,	1914-1920
John F. Gannon,	1915-1939
James F. Bacon,	1916-1936
Carlton D. Richardson,	1918-1932
Atherton Clark,	1921-1928
John Chandler,	1924-1941
Sarah Louise Arnold,	1926-1932
Howard S. Russell,	1928-1935
Frederick D. Griggs,	1928-1942
Mrs. Lottie A. Leach,	1932-1936, 1945-1951
David J. Malcolm,	1932-1946
Joseph W. Bartlett,	1934-1960
David H. Buttrick,	1934-1939
Mrs. Lena E. Wilson,	1934-1937
William C. Monahan,	1936-1942
James T. Cassidy,	1937-1943
William Casey,	1937-1940
Mrs. Elizabeth L. McNamara,	1937-1957
Joseph B. Ely,	1938-1944
Mrs. Katherine G. Canavan,	1938-1944
Clifford C. Hubbard,	1939-1948
Harry D. Brown,	1940-
John W. Haigis,	1940-1956
Richard Saltonstall,	1942-1948
Frank L. Boyden,	1943-1948, 1953-
Alden C. Brett,	1943-
Leonard Carmichael,	1944-1953
Ernest Hoftyzer,	1945-
Ralph F. Taber,	1945-1952, 1953-1960
John M. Deeley,	1946-1952
William M. Cashin,	1949-
William A. Orton,	1949-1952
Dennis M. Crowley,	1952-
Rev. Florence J. Donohue,	1952-1953
F. Roland McDermott,	1952-1960
Lewis Perry,	1953-1958
Grace A. Buxton,	1954-1959
John W. Haigis, Jr.,	1956-
Rt. Rev. Msgr. Joseph H. Boutin,	1957-1958
Judge J. John Fox,	1958-
Victoria Schuck,	1958-
Joseph P. Healey,	1959-
Robert Sullivan,	1960-
Mrs. Kathryn F. Furcolo,	1960-
George L. Pumphret,	1960-
Hugh Thompson,	1960-1962
Most Rev. Christopher J.Weldon,	1962-

DEANS

(September, 1962)

The Graduate School — Edward C. Moore
College of Agriculture — Arless A. Spielman
College of Arts and Sciences — I. Moyer Hunsberger
School of Business Administration — H. B. Kirshen
School of Education — Albert W. Purvis
School of Engineering — George A. Marston
School of Home Economics — Marion A. Niederpruem
School of Nursing — Mary A. Maher
School of Physical Education — Warren P. McGuirk

DEPARTMENT HEADS

(September, 1962)

Accounting — John W. Anderson, Chairman
Agricultural and Food Economics — John Blackmore
Agricultural Engineering — Robert W. Kleis
Agronomy — William C. Colby
Air Science — Thomas M. Carhart
Art — Paul F. Norton
Astronomy — Albert P. Linnell, Amherst (Four College Cooperation)
Botany — Robert B. Livingston (Acting Head)
Chemistry — William E. McEwen
Dairy and Animal Science — Denzel J. Hankinson
Economics — Philip L. Gamble
Education — Albert W. Purvis
Engineering:
  Chemical Engineering — John W. Eldridge
  Civil Engineering — Merit P. White
  Electrical Engineering — G. Dale Sheckels
  Mechanical Engineering — William H. Weaver
English — Howard O. Brogan
Entomology and Plant Pathology — John H. Lilly
Food Technology — William B. Esselen
Forestry and Wildlife Management — Arnold D. Rhodes
General Business and Finance — James B. Ludtke, Chairman
Geology — H. T. U. Smith
German and Russian — Frederick C. Ellert
Government — John S. Harris
History — Howard H. Quint
Home Economics — Marion A. Niederpruem
Horticulture — Grant B. Snyder

Landscape Architecture — Raymond H. Otto
Management — John T. Conlon, Chairman
Marketing — Harold E. Hardy, Chairman
Mathematics — Allen E. Anderson
Microbiology — Charles D. Cox
Military Science — Col. Albert W. Aykroyd
Music — Doric Alviani
Nursing (School of) — Mary A. Maher
Physical Education for Men — Sidney W. Kaufmann
Physical Education for Women — Ruth D. Totman
Physics — John D. Trimmer
Philosophy — Clarence W. Shute
Poultry Science — Thomas W. Fox
Psychology — Claude C. Neet
Public Health — Robert W. Gage
Recreation Leadership — William E. Randall
Romance Languages — Stowell C. Goding
Sociology and Anthropology — J. Henry Korson
Speech — Arthur E. Niedeck
Veterinary Science — Glenn A. Snoeyenbos
Zoology — Donald Fairbairn

APPENDIX VI
ALUMNI AND STUDENTS WHO DIED DURING WORLD WAR I AND WORLD WAR II IN THE SERVICE OF THEIR COUNTRY

WORLD WAR I

Amos F. Hamburger '08
Dexter E. Bailey '10
Louis C. Brown '10
Halliday S. Smith '10
Edward A. Larrabee '11
Alton P. Wood '11
Warren F. Fisherdick '12
Willard H. Hasey '13
Robert B. Hutchison '13
Harold W. Hyland '13
Ralph T. Neal '13
Charles M. Streeter '13
Francis W. Whitney '13
John W. Bradley '14
Robert H. Chapon '14
Samuel Koplovitz '15
Raymand Chamberlin '16
Kenneth B. Laird '16
Charles H. Clough '17
Walter I. Cross '17
Alfred A. Farwell '17
Warren T. Harris '17
William W. Thayer '17
Robert C. Westman '17
Charles R. Wilber '17
Thomas E. Carter '18
David O. N. Edes '18
Hamilton K. Foster '18
Robert P. Irvine '18
Forrest D. Jones '18
Arthur V. Petit '18
Brooks Woodworth '18
Edwin P. Cooley '19
Elston A. Day '19
Thomas W. Desmond '19
Laurence W. Gay '19
John R. Moore '19
Ernest F. Sexton '19
Wilfred L. Woodside '19
Warren S. Hathaway '20
Ivan A. Roberts '20
Ralph R. McCormack '21
Trueman E. Kile '21

INSTRUCTOR
Windom A. Allen

GRADUATE STUDENTS
Ernest L. Davies
John E. Martin

UNCLASSIFIED STUDENTS
Paul T. H. Buck
William P. Fitzgerald
Carroll E. Fuller
John F. Giles
Edward A. Hooper

WORLD WAR II

Albert J. Kelley '13
Frank E. Haskell '16
John F. Bresnahan '22S
Melvin B. Hallett '23
Robert D. Mohor '23
Raymond A. Wardell '27
William C. Witherell '29S
Harold C. Durkin '30S
William J. O'Leary '30
John P. Carroll '31S
John L. Diggin '32S
Azor O. Goodwin '32
Lynwood P. Teague '32
Nicholas M. O'Neill '33S
Joseph J. Sheff '33
Samuel Adams '34
David W. Brooks '34S
Wallace L. Chesbro '34
Lauren W. Hawes '34S
George A. Hartwell '35
Wendell R. Hovey '35
Charles W. Hutchinson '35

Leonard W. Parker '35
Paul O. Wood '35
Robert W. Adams '36S
Robert S. Bray '36
Frank Greenwood '36
Andrew Timoshuk '36S
Gildo J. Uliana '36
Harold E. Ballway '37
James J. Dobby '37
Robert J. Hodgen, Jr. '37S
Bernard J. Jackimczyk '37S
Robert L. Rosenfield '37S
Herbert C. Simmons '37S
Francis J. Thomas '37
George W. Trowbridge, Jr. '37S
Donald E. Weaver '37
Carl J. Bokina '38
Lowell K. Hammond '38S
Edward W. Higgins '38
Donald E. Nason '38S
Richard B. North '38S
Stephen I. Silverman '38
Lawrence H. Bixby '39
Robert S. Cole '39
Leo D. Fay '39
Douglas K. Henderson '39S
John Manna '39
Edward G. Meade '39
Gerald M. Parmenter '39
Raymond E. Smart, Jr. '39
Raymond E. Taylor '39S
William P. Wood '39S
Albert L. Cembalisty '40S
Charles H. Coates '40S
William N. Lambert, Jr. 40S
Morton J. Pearlman '40
Ralph H. Reed '40
John P. Serex '40
Gordon W. Thurlow '40S
Paul C. Vinson '40S
Edward W. Ashley '41
Allan R. Bardwell '41
Kenneth E. Brown '41S
Robert T. Bryan '41S
Herbert M. Cohn '41
Varnum P. Curtis, Jr. '41
Paul M. Dooley '41
Anthony J. Goode '41
Clinton F. Goodwin, Jr. '41
Roy B. Hall '41S
Edmund B. Hill, Jr. '41S
Thomas W. Johnson '41
Richard H. Knight '41
Jason H. Lotow '41
Joseph M. Spiridigliozzi, Jr. '41S
Benjamin Spungin '41
Robert C. Tillson '41
Richard W. Vincent '41
William R. Ware '41S
Winthrop B. Avery '42
Stephen H. Barton '42
Harold J. Bloom '42
Kenneth M. Coombs '42S
Paul J. Dwyer '42
George P. Langton '42
Howard L. Lewis '42S
Stephen R. Papp '42
Charles W. Puchalski '42S
Carl F. Roehrich '42S
John J. Seery '42
Whitney C. Appleton '43S
Harold L. Crump, Jr. '43S
Melville B. Eaton '43
Mason M. Gentry '43
Melvin I. Goldman '43
Robert H. Hall, Jr. '43S
Richard A. Hewat '43
Clarence V. Jones '43
Paul S. Marsoubian '43S
Russell J. McDonald '43
Carl R. Rano '43
Donald J. Schmidt '43S
Kenneth A. Stewart '43
Loren C. Wilder '43
James M. Burke '44S
William E. Gere '44
William J. Kablick '44
Aarne O. Karvonen '44
Stanley T. Kisiel '44
Alden W. Learoyd '44
Robert F. McEwan '44
W. Earle Newton, Jr. '44
William P. Ryan '44
Robert J. Sweeney, Jr. '44S
Raymond A. Weinhold '44
George E. Anderson '45
Milton S. Edelstein '45
Nello F. Fiorio '45
Edward M. Gladding '45
Robert B. Gower '45

Ransford W. Kellogg '45
Edward J. Lesniewski '45
Anthony G. Marulli '45
Eli Reines '45
Edward L. Ross '45
Albert S. Simpson '45
Samuel Springer '45
Richard E. Thomas '45
Dwight V. Trubey '45
Merton L. Chouinard '46
Peter D. Cole '46
Paul D. Holst '46
Edwin Marvel '46
Raymond S. Moen '46
Charles H. North '46
Edward Shurin '46
Edward Gere Torrey '46
Roger R. Wellington '46

APPENDIX VII
THE PIONEER CLASS, FALL OF 1867

Gideon H. Allen
William Barrows, Jr.
Andrew L. Bassett
George H. Bell
William P. Birnie
Charles E. Blunt
William H. Bowker
Webster Breck
William F. Brett
Clarence E. Brown
William H. Cary
Michael F. Casey
Lilley B. Caswell
Daniel P. Cole
Homer L. Cowles
Loring Crocker, Jr.
George H. Eastman
Emory A. Ellsworth
Jabez F. Fisher
George E. Fuller
George G. Graves
William H. Greene
Charles B. Gunn
Lemuel W. Hall
Frederick A. Hall
Frank W. Hawley
Frederick St. C. Herrick
Charles M. Howland
Frank Hubbard
David W. Kelleher
Albert King
George Leonard
Gardiner C. Luther
Robert W. Lyman
James H. Morse
Edwin D. Nash
Lewis A. Nichols
Arthur D. Norcross
Joel B. Page
Austin A. Rankin
Samuel H. Richmond
William D. Russell
William Slattery, Jr.
Edwin Smead
Alonzo L. Southwick
Lewis A. Sparrow
George P. Strickland
George A. Swift
Edgar E. Thompson
Wilson M. Tucker
Charles A. Wheeler
Willard C. Ware
William Wheeler
Frank L. P. Whitney
Henry Williams
George C. Woolson

APPENDIX VIII
THE CLASS OF 1963

Abladian, Michele H.
Abrams, Edward A.
Abrams, Janice L.
Achille, Donna M.
Acres, Paul N.
Adams, Dorothy E.

Adams, Patricia A.
Adams, Robert C.
Adinolfi, Dorothy P.
Adrien, Daniel O.
Aho, John H.
Aksionczyk, Leon
Alberici, R. J.
Aldrich, Susan D.
Alger, Steven F.
Allain, Henry N.
Allan, Robert I.
Allen, Leigh C.
Allen, Lucille E.
Allen, Richard B.
Ambrose, Marilyn J.
Andelman, Neal C.
Archey, Warren E.
Armstrong, Elaine M.
Arnold, Larry T.
Arrick, Robert A.
Ashley, Stuart C., Jr.
Askew, Judith
Austin, Leonard D.
Avery, Robert A.
Avery, William S.
Avratin, Peter C.
Babaian, Archie
Baclawski, Jan A.
Badavas, Paul C.
Bagdon, Margaret T.
Baird, Nancy H.
Baker, Ann E.
Baker, Nancy P.
Balch, David W.
Baler, Gregory R.
Balutis, Constance J.
Banner, David C.
Banner, Margarete H.
Barclay, Patricia L.
Barnes, Donald H.
Baron, Patricia A.
Baron, Richard A.
Barrett, Robert K.
Barron, Irma F.
Barry, Joseph F.
Barton, Anne C.
Baskin, James E.
Bates, David E.
Bates, Rochelle E.
Battory, Ronald R.
Baxter, William T.
Beck, Fred L.
Beck, Roberta J.
Bednarz, Dolores A.
Beerman, Deborah L.
Bejian, George H., Jr.
Belanger, Michael P.
Bemis, Charles E.
Benjamin, Howard K.
Benoit, Edmond G.
Benson, Alan J.
Berberian, John G.
Bergen, George M.
Berkowitz, Joel D.
Bernardo, Elaine M.
Bernier, Donald F.
Bertolino, Mary M.
Best, Thomas W.
Bevilacqua, Albert E.
Bieda, Robert J.
Biello, John E.
Bieniek, Edwin J.
Black, Donald C.
Black, James L.
Blackler, Patricia L.
Blain, Raymond L.
Blais, Virginia
Blake, David K.
Blake, Douglas F.
Bliss, Marjory S.
Blomstrom, Richard V.
Bloom, Arlene E.
Bluhm, Leslie, Mr.
Blum, Marguerite A.
Blumsack, Eleanor D.
Blythe, John S.
Boe, Lance R.
Bond, Norman D.
Bonfilio, R. J.
Bonner, Donna Lee
Bonoldi, Alfred J.
Boraski, Charles G.
Borin, Michael S.
Bornstein, Alan D.
Botti, Bettina M.
Bowden, Bradley S.
Bowker, Leslie S., Jr.
Bowlen, Nord C.
Boyle, William J., Jr.
Brand, Susan J.

Bray, William R.
Brennan, Michael S.
Brescia, James A.
Brinckerhoff, L. J.
Brink, Kenneth G.
Briss, Barry S.
Broberg, Bette L.
Bromfield, Louise
Brooks, Barry M.
Brown, Charles B.
Brown, David B.
Brown, Michael J.
Brown, Robert G.
Brown, Susan R.
Brownhill, R. D.
Bruen, Jean F.
Bryant, David L.
Buckingham, David M.
Buckler, Elaine M.
Buckman, Michael L.
Budney, Thomas J.
Burke, Catherine M.
Burke, Judith A.
Burnett, Jean H.
Burnett, Thomas R.
Burnham, Linda W.
Burns, Ann J.
Burns, Richard L.
Burque, Leo E.
Bush, Richard C.
Bushey, Eleanor K.
Butkiewicz, Judith C.
Byrne, John R.
Cabana, Peter A.
Cahill, John M.
Caldwell, Robert W.
Callahan, Ronald E.
Callahan, Thomas H.
Camp, Charles W.
Campanale, John B., Jr.
Canfield, Karen E.
Cann, Jean M.
Cantin, Jeanne A.
Carey, Alice E.
Carey, Walter H.
Carlson, Elaine E.
Carlson, Evelyn M.
Carlson, Gloria E.
Carlson, Virginia L.
Carmel, Jacqueline M.
Caroline, Michael H.
Carrara, Adelmo J.
Carrigan, John P.
Carruth, William E.
Casey, David A.
Casey, Janet A.
Cassidy, F. D.
Catalano, Rosann M.
Cepurneek, Carl P.
Cerretani, Robert W.
Chalifoux, Homer D.
Chalmers, Paul S.
Champagne, John L.
Champion, Joyce L.
Chase, Patricia W.
Chaskelson, Gerald
Chaskes, Jerome A.
Chenery, Robert L.
Cherry, Judith A.
Chiasson, Peter A.
Chiesa, Robert J.
Chiras, Ronald P.
Chiriboga, Carlos D.
Chomyn, Elaine V.
Ciarlone, Dorothy L.
Clapp, M. Carol
Clark, Arthur E.
Clark, Darrell A.
Clarkson, Nancy A.
Clay, Alice M.
Clayman, Amy S.
Clement, Jan L.
Clemons, Robert D.
Cleveland, Albert P.
Clifford, David M.
Clinton, Gerald S.
Coates, Philip G.
Cobb, Gretchen E.
Cobb, Leith L.
Cobb, William R.
Cocchi, Maurice H.
Coffey, James B., Jr.
Cohen, Allan
Cohen, Ann L.
Cohen, Barry J.
Cohen, Lawrence M.
Colclough, Paula J.
Cole, Thomas B.
Collier, Robert K.
Collins, James A.

Collins, Matthew L.
Comtois, David R.
Concemi, Samuel J.
Conlon, Bernice A.
Connolly, Kathryn C.
Connolly, Thomas F.
Conway, Margaret C.
Corey, Ronald B.
Cosentino, Antonio G.
Costonis, Arthur C.
Cournoyer, Donald C.
Couture, Russell W.
Cowen, Jon A.
Cowles, Roxana C.
Cowley, Douglas A.
Cox, John
Crane, Barry F.
Creamer, Constance A.
Creedon, Daniel M., Jr.
Crocker, Carla J.
Crocker, Dian M.
Crocker, Nancy E.
Crocker, Robert B.
Crosby, Louise D.
Crosier, Elizabeth A.
Cross, Susan C.
Crotty, Paul V.
Crotty, Walter M., Jr.
Crowe, John G.
Crowley, Judith E.
Crowley, Patricia E.
Cullinan, Neil M.
Curtin, Eugene T.
Curtis, Constance R.
Curtis, Gerald B.
Curtis, James A.
Cushing, Barbara F.
Cwiklik, Paul A.
Cyran, Marianne B.
Daher, Fred P.
Daley, Mary P.
Dallas, Diana
Daly, Stephen P.
Dame, Nancy E.
Darcy, David H.
Dare, Louise H.
Darmon, Harold G.
Daubitz, Paul C., Jr.
Davanzo, Andrew
David, Lloyd
Davidowicz, B. H.
Davidson, Edward S.
Davidson, Geoffrey A.
Davis, Ruth J.
Deane, Norman C.
Dearborn, Alva M.
Decaro, Francis R., Jr.
Deeney, Sally A.
Defilippo, Gerald J.
Del Masto, John J.
Delisle, Robert C.
Dellapenna, Joan F.
Demarco, Beverly A.
Demetropoulas, D.
Denneen, John F., Jr.
Depalma, Anthony V.
Depalma, Bruno
Depaolo, Patrick A.
Devincentis, M. M.
Devine, Mary E.
Devletian, Jack H.
Dickinson, Marie E.
Dickson, Beryl A.
Dickstein, Judith H.
Didomenico, Ned J.
Dieterle, Bowen S.
Dimauro, A. Joseph
Dinucci, Richard O.
Ditomasso, John N.
Dix, Mary K.
Dixon, Diane M.
Dodge, Thomas E.
Donato, Joseph M.
Donovan, C. W., Jr.
Donovan, Charles T.
Donovan, John J., Jr.
Doolan, Sally L.
Doran, Richard A.
Dorgan, Robert H.
Dougan, Clinton G.
Dovner, Janice A.
Downer, John M.
Doyle, John A.
Doyle, Thomas M.
Drew, Miriam E.
Drinkwater, Byron A.
Duby, Martin H.
Duclos, Claire M.
Dunaisky, Lois A.
Dunfee, William P.

Dunlop, John W.
Dunn, Diana S.
Dupelle, Michael R.
Dupont, Paul E.
Durfer, Edwin R.
Dutton, L. R.
Dyer, Charles F., Jr.
Dyer, David W.
Eastman, Carol M.
Eburne, Roberta M.
Ekwall, Donald F.
Eldred, Emily C.
Eldridge, Alice L.
Eldridge, Carolyn M.
Ellingwood, James W.
Ellis, Helen E., Mrs.
Emond, Bruce A.
Erhard, Gregory R.
Esoldi, Carol A.
Estes, Albert T., Jr.
Ewell, Wesley J.
Fahey, Grace E.
Fairfield, Diane R.
Fallon, K. P., 3rd
Fandel, Virginia E.
Farbman, Sharon L.
Fardy, Marguerite A.
Farrell, M. E.
Farris, James S.
Farrow, James J.
Faucette, John B., Jr.
Faulkner, Jean
Fedoryshyn, Peter
Feer, Michael H.
Feingold, Mark L.
Ferguson, Hildreth A.
Ferrigno, Beatrice A.
Field, Richard J.
Field, William B.
Fielding, Patricia A.
Fierra, David A.
Filkoski, Marian B.
Fink, Rosalie P.
Finlay, Robert G.
Fitzgerald, John J.
Fitzpatrick, Grace A.
Flagg, Loren B.
Flanders, Donald A.
Flathers, Charles F.
Fleishman, Lois B.
Fletcher, David H.
Fluet, Francis A.
Fohlin, Charles L.
Foley, Thomas E.
Ford, Lauchlan J.
Forgit, Roy F.
Forman, Richard
Forman, Steven M.
Forster, Richard J.
Fortin, Janet P.
Forward, Phyllis E.
Fratar, Thomas J.
Freedman, Marjorie J.
French, Martin T.
Friar, Carol S.
Frodyma, Francis J.
Fuchs, John H.
Fuller, Diane E.
Fuller, Samuel P.
Furey, Thomas E., Jr.
Furman, Anatal
Furtado, Ann
Gaffer, Elliot H.
Gage, Carolyn L.
Gambino, Blase P.
Garber, Linda J.
Gardini, Constance M.
Gardner, Hugh R.
Gardner, Linda M.
Gardner, Louise H.
Garriepy, Edward C.
Garsys, Algimantas V.
Gaughan, George R.
Gauthier, Annette W.
Gawalt, Jean A.
Gay, Clark F.
Gebelein, Richard H.
Geberth, Gayle L.
Galfand, Norman D.
Gennari, Lorraine A.
Gerber, Theodore
Giddings, George G.
Gilbert Rochelle M.
Gilliatt, Frank K.
Gilliatt, James G.
Gillon, Thomas C.
Gilman, Judith A.
Ginsberg, Robert D.
Giordano, Sandra R.
Girard, Eric L.

Girard, Irene M.
Glassman, Norman
Gleason, Arthur E., Jr.
Gleckman, Roger J.
Gleichauf, Robert
Glennon, John J.
Glidden, Neil R.
Glinski, Walter J.
Gliserman, Saul E.
Gloth, Richard E.
Goddard, Sandra J.
Goff, Ernest C.
Goff, Kenneth A.
Gold, Heather M.
Goldberg, Jeffrey A.
Golden, Richard J.
Goldman, Laura E.
Goldman, Russell T.
Goldstein, Richard A.
Goldthwaite, Joan
Golick, David
Goodlatte, A. R., Jr.
Goodman, William M.
Gordon, Charles D.
Gordon, Gayle L.
Gordon, Kenneth P.
Gorman, Daniel J.
Gorman, Elizabeth M.
Gorman, Pauline T.
Gorman, Robert M.
Gould, David E.
Gounaris, John R.
Goyer, Carolyn J.
Goyer, Richard A.
Graham, Winifred
Gralla, John B.
Graves, William E.
Gray, Brister S.
Greco, Carmine A.
Greendale, John H.
Gregory, Nancy J.
Griffin, Anne E.
Grueter, Marcia A.
Gurney, Robert E.
Gustin, Ann W.
Hack, Roberta L.
Haebler, Peter
Hajjar, Carol B.
Hajjar, W. A., Jr.
Hale, W. Charles
Halevy, David N.
Hall, Pearl N.
Hall, Roger L.
Hall, William R.
Halper, Miriam L.
Hamilton, Richard A.
Hammond, Edmund T., Jr.
Hammond, Edward L.
Hancock, Judith L.
Hanna, Roberta L.
Hannigan, Patricia
Hanson, Carl M.
Hardy, Janet M.
Harootyan, Leo S., Jr.
Harrigan, Stephen E.
Harrington, David R.
Harrington, E. F.
Harris, Nancy R.
Hartnett, John P., Jr.
Harwood, William F.
Hathaway, Marilyn S.
Hathaway, Warren G.
Hawkes, Robert L.
Hayes, Richard H.
Heanue, Paul T.
Hedlund, Alan J.
Hefler, Peter R.
Heitin, Carolyn E.
Hempel, Blanche V.
Henderson, Judith E.
Hennessey, Arthur F.
Henry, Robert S., Jr.
Herliczek, S. H. A.
Hewey, Stephen B.
Hickman, James P.
Higginbotham, F. E., Jr.
Hill, Daniel G.
Hill, Janice D.
Hilton, Robert L.
Hinds, Harold R.
Hirst, Ruth E.
Hobson, Jay D.
Hoffman, Richard A.
Hogan, William J., Jr.
Hogue, James H.
Holman, Frances A.
Holmes, Carroll A.
Hopkins, Nancy L.
Houde, Edward D.
Howard, Dennis A.

Howard, Neil J.
Howarth, James A.
Howayeck, Michael J.
Howland, Richard A.
Hudzikiewicz, J., Jr.
Hull, Judy E.
Hume, Martha W.
Hurst, Phyllis J.
Hurwitz, Irving L.
Hutchinson, K. L.
Hutchinson, P.
Hynes, Priscilla M.
Immonen, Linda J.
Ingalls, Shirley B.
Iossa, Susan L.
Ireland, Robert J.
Isenstadt, Arnold L.
Isham, Margaret R.
Israel, Alan S.
Israel, Stephen R.
Jaksina, Stephanie
Jarnes, Lorraine S.
Jaszek, Paul J.
Jenkins, Carolyn P.
Jennings, Hilda M.
Jewell, Mary L.
Johnson, Barbara J.
Johnson, Carl W.
Johnson, Elizabeth L.
Johnson, Frederick W.
Johnson, Gayle A.
Johnson, J. L.
Johnson, L. H., Jr.
Johnson, Lucille E.
Johnston, W. G., Jr.
Jones, Janice M.
Josephson, Harriet M.
Kable, Barbara L.
Kaleta, Dennis W.
Kallinen, Virginia A.
Kallio, Jon L.
Kamp, Barton D.
Kane, John M.
Kaplan, Murray J.
Karbott, Frederic M.
Karl, Marilee L.
Karshick, Ernest C.
Kartono, S.
Kasper, George P.
Kaufman, David F.
Keblin, Sheila D.
Keirstead, Carol A.
Kelley, John F.
Kelley, Judith A.
Kelly, Ann E.
Kelly, Jerry S.
Kelly, Michael E.
Kelsey, Henry D.
Kemp, Albert L.
Kennedy, David W., Jr.
Kenyon, Nancy
Keough, Laurence J.
Ketcham, Delbert B.
Kezer, Kenneth R.
Khouri, George J.
Kimball, George S.
Kincaid, William J.
Kinne, Thomas A.
Kinney, Esta C.
Kirby, Ruth A.
Kirby, Thomas W.
Kirchner, Rose M.
Kittler, David W.
Klaes, Virginia M.
Kleciak, Edward
Knapp, Joseph W.
Kober, Karen A.
Kock, Reino A.
Korb, Charles L.
Korb, Roslyn A.
Koski, Sandra A.
Kozaka, John C.
Kramer, Jane C.
Kraskouskas, A. P., Jr.
Krasnow, Sharon B.
Kravetz, Stephen R.
Kriedberg, Kenneth
Krigman, Irwin M.
Krukonis, David V.
Kuchyt, Arlene M.
Kucinski, Karol P.
Kwapien, Theodore
Kwist, Garry R.
Lacroix, Suzanne A.
Ladd, Ruth H.
Laird, Mary E.
Lamothe, Judith A.
Lampke, Rhona L.
Lampron, Susan May
Lane, Henry W.

Lane, Linda L.
Lang, Theodore E.
Langbort, Carol R.
Langway, Robert W.
Lapier, Charles E.
Lapointe, J. J.
Lappen, Eliot
Lareau, Patricia M.
Lariviere, Edward D.
Larkin, Peter C.
Lautzenheiser, A. M.
Lavalette, Barbara A.
Lebowitz, Beverly S.
Leclair, E. H.
Leclair, Stephen T.
Lederman, Linda B.
Lees, Patricia A.
Lees, Ronald D.
Lefebvre, Leo C., Jr.
LeFrancois, R. A.
Legoff, Marilyn A.
Legrand, Richard N.
Legro, Philip J.
Lemanis, Susan T.
Leonard, Mary E.
Leonesio, Robert B.
Lepp, Robert H.
Leslie, Kirk A.
Lessard, Pierre
Levenson, Maxine J.
Levine, Jacob S.
Levine, L. James
Levine, Peter M.
Levine, Ruth B.
Levy, Paul H.
Levy, Stephen R.
Lewis, Ruth A.
Libardoni, Albert L.
Lidman, Jeffrey A.
Lima, Alfred J.
Lincoln, Hamilton, Jr.
Lindahl, Judith A.
Lindsey, Joyce P.
Lindstol, Carol J.
Linnehan, K. A.
Linton, Bruce B.
Lipton, David M.
Livingston, Kenneth
Lizio, Carolyn
Locke, John Obrien
Loew, James B.
Long, Richard J.
Loper, Marilyn E.
Lord, Bruce W.
Louis, Janet L.
Lowe, Barry A.
Lowe, Dorothy G.
Lowe, Mina E.
Lucas, Robert F.
Lundgren, Barbara A.
Lundgren, Janice H.
Lundgren, Robert E.
Lupien, Linda C.
Lussier, Samuel J.
Lutch, Marsha F.
Lyman, Charles D.
Lyons, Geraldine M.
Maccini, Marie C.
Macdonald, Kenneth J.
Macdonald, Peter K.
Macdonald, Richard J.
Macduffie, Nancy E.
Macgillivray, Dennis
Mach, Frederick P.
Maciver, K. F., Jr.
Macleod, Donald E.
Macleod, Duncan R.
Macleod, William C.
Maclinn, Anne F.
Macneil, John R.
Macycove, Susan E.
Madden, John W., Jr.
Madden, Rita B.
Madison, Carol A.
Maggs, John A.
Mahoney, Joan
Majeski, Paul A.
Malin, Christine
Mallette, Marcia E.
Malliaros, P. A.
Malloy, Daniel L.
Malone, James R.
Maloney, Margaret A.
Mand, Elmet
Mandell, Judith L.
Mannin, Judith A.
Manning, Richard J.
Marble, Joan L.
Marcinkiewicz, R. J.
Marino, Ralph A.

Marlin, Jay
Marsden, Carole A.
Marsden, John R., Jr.
Marsella, Madeline M.
Martin, Mary R.
Martsen, Fred W.
Maskell, Arthur M., Jr.
Masnik, Peter L.
Mason, Mary A.
Mastrodomenico, R. J.
Mastromatteo, R.
Matthews, Dolores
Mawaka, Arlene B.
Mayo, Joseph W.
Maziarz, Frances A.
McCaffrey, Linda C.
McCarthy, Edwin F., Jr.
McClure, Kenneth R.
McColgan, Paul F.
McCormick, Mary A.
McCullough, D. P.
McDevitt, Kevin T.
McDonough, Barbara A.
McDonough, Carol A.
McGovern, Gerald F.
McGrath, Kathleen
McGreal, Patrick J.
McHugh, Robert H.
McKey, Maryann
McKenney, Jane L.
McKeon, Frances R.
McKniff, Joan E.
McLaughlin, G. E.
McLean, Bruce A.
McPartlin, Walter L.
McQuestion, David W.
McWeeny, Maureen
Meakim, Jean N.
Meeker, Edmund G.
Mello, Manuel G.
Meltzer, Ann S.
Mendrek, Julianne P.
Menin, Elaina R.
Mentes, Marjorie A.
Merrill, Christina
Metevia, Paul K., Jr.
Meyers, Bruce A.
Mgrdichian, R. M.
Michael, Claire S.
Michaud, David R.
Miles, Gordon F.
Miller, Diane V.
Miller, Mitchel C.
Miller, Warren
Miller, Wayne L.
Mills, Barbara A.
Minutillo, Robert N.
Mitchell, Barbara A.
Mitchell, E. A.
Mitchell, Meribah V.
Moczarski, Lois F.
Mole, Michael T.
Montgomery, Donna M.
Moore, Albert B.
Moore, Donald E.
Moore, Donald W.
Morgan, Edward P., Jr.
Morgan, Francis L., Jr.
Morin, Arthur A.
Morin, Margaret L.
Moro, Joseph G.
Morris, Austin C.
Morris, Linda L.
Morris, Michael W.
Morris, Stephen M.
Morrison, David C.
Morrissey, Harry M.
Mortimer, Marie H.
Morton, Richard F.
Morze, Alexander F.
Mould, Martin J.
Moynihan, Joseph F.
Mozden, Carolyn A.
Mozgala, John W.
Mulcahy, Francis D.
Mullaly, Jerome R.
Mullaney, Jeanne P.
Mullen, Jane E.
Munro, Gail R.
Murphy, Lawrence J.
Murphy, Marvin E.
Murphy, R. F., Jr.
Murray, Charlanne R.
Murray, George D., Jr.
Murray, John T., Jr.
Musgrave, Lynn S.
Mushroe, Richard L.
Myskowski, Stephen M.
Nathanson, Alvin S.
Neal, Patricia E.

Neale, Lester
Nelson, Charles H.
Nelson, Harold P.
Nelson, Lynda P.
Nelson, Ruth L.
Nelson, Vernon A.
Neulieb, Virginia R.
Nevins, Arniel F.
Newman, Janice A.
Newton, George H.
Newton, Geraldine L.
Nichols, Ralph V.
Nicholson, James M.
Niejadlik, John, Jr.
Nihan, Charles W.
Niskanen, Mary E.
Nobrega, Edward P.
Noller, Marvin G.
Noon, David W.
Noonan, Pamela J.
Noren, Judith S.
Norton, Allen E.
Nuppola, Raija T.
Nurmi, Elizabeth A.
Oakes, Gordon N.
Oakley, Judith A.
O'Brien, Kenneth L.
O'Brien, Roben M.
O'Brien, William J.
Obue, Albert J., Jr.
O'Clair, Charles E., Jr.
O'Connell, C. E.
O'Connell, P. C.
O'Connor, John J.
O'Donnell, Pamela J.
O'Hare, James M.
Olchowy, Peter
Olinky, Oded
Oliver, Barbara G.
Olson, Marjorie A.
O'Neil, Agnes B.
O'Neill, Brendon C., Jr.
O'Neill, Susan M.
O'Reilly, Sara A.
Orgard, Elaine M.
Orlen, Gerald L.
Orrell, Joan F.
Osper, Anita M.
Paddock, Carl V.
Paleocrassas, S. N.
Palmer, Patricia E.
Palter, Michael H.
Parisi, Eunice M.
Parker, Kenneth A.
Parry, William D.
Parsons, Edward G.
Patla, Robert R.
Patrie, Daniel N.
Patt, Helen L.
Patterson, John J.
Patterson, Richard J.
Patz, Stanley K.
Pearce, Karl T.
Pearlstein, Arthur P.
Pearson, William C.
Pease, Mardell C.
Pedersen, Bruce L.
Pellegrini, L. R.
Peloquin, George L.
Pennington, C. J., Jr.
Peoples, Robert A., Jr.
Perdigao, Arthur A.
Perdriau, Robert H.
Perkins, H. C., 3rd
Perkins, Pamela
Perley, Linda J.
Perley, Ruth F.
Pernokas, John N.
Pero, Vernon F.
Peters, Stephen J.
Peterson, Bethel A.
Peterson, Karen J.
Petrolati, Gerald A.
Pfersich, Loretta M.
Phelps, Sandra A.
Phillips, Robert M.
Philpott, John W.
Pia, Lewis P.
Pianowski, John T.
Piecewicz, J. L.
Pink, Margaret M.
Pisiewski, F. P., Jr.
Pleau, George E., Jr.
Popple, Lawrence D.
Porter, William J.
Posner, Frederick H.
Potorski, Louis J., Jr.
Potter, Richard M.
Price, Carolyn F.
Primeau, Uly A.

Primmer, Elisabeth L.
Prior, John F.
Prior, John J.
Prost, Wayne D.
Pyne, Roger S., Jr.
Quance, James F.
Quimper, Joseph A.
Quinty, Peter R.
Quirck, Judith A.
Racette, Kenneth M.
Racette, R. A., Jr.
Radding, Edward A.
Rae, Paul Stewart
Rafferty, Kathryn M.
Rainka, Ronald R.
Rajecki, Judith A.
Ramm, Joan L.
Ratner, Michael S.
Rayner, Audrey A.
Reall, Genevieve A.
Reed, Erroll L.
Reed, Robert J.
Reilly, Karen A.
Remillard, Vincent L.
Renes, Richard F.
Resnick, Phyllis A.
Reynolds, Jack M.
Ricker, Elaine C.
Riesen, John W.
Ringoen, Nancy A.
Roach, Elizabeth A.
Roanowicz, Jean A.
Robare, David J.
Robbins, David J.
Roberge, Armand G.
Roberts, Michael E.
Robicheau, Betsy B.
Robillard, Norman J.
Robinson, Terrence A.
Roche, Carol A.
Roche, Patrick
Rockwood, Ainsley B.
Rodgers, Virginia E.
Rogers, Ernest H.
Rogers, James K.
Rollins, David M.
Romano, Reeta E.
Romanson, Walter A.
Rosch, Norman E.
Rosenbaum, Edmund A.
Rosenberg, Judith L.
Rosenthal, Myer H.
Rouleau, William H.
Rubenstein, Joan L.
Rull, Jeanne T.
Rusiecki, Ronald S.
Russell, Sandra L.
Ruthel, Evelyn I.
Rutledge, Philip S.
Ryan, Judith K.
Ryan, Kenneth J.
Ryan, Robert W.
Ryan, Sheila D.
Rzeszutek, Beverly A.
Sabatinelli, A. H.
Salem, Michael D., Jr.
Salwitz, Stephen E.
Salzberger, B. A.
Samma, Abdulrasul H.
Sampson, John S., 3rd
Samuelson, Elsie M.
Santarelli, Sheila G.
Santucci, David M.
Saul, Lucia C.
Saval, Jerald F.
Savary, Robert L.
Savat, Alan F.
Sawyer, Margaret E.
Sawyer, Richard C.
Scannell, C. V.
Schmidt, Louis E.
Schmoyer, James B.
Schoonmaker, Janet M.
Schortmann, J. J., Jr.
Schrag, Jane M.
Schuhle, John E.
Schuster, Robert A.
Scott, George L.
Scott, Pancheta M.
Scully, William C.
Secino, Marquita M.
Senecal, Clayton C.
Serra, Paul J.
Seuss, David C.
Shahian, Marilyn
Shainheit, H. L.
Shamey, Miriam J.
Shamroth, Robert G.
Shane, Deana
Shanker, Harriet

Sharp, Norman R.
Shea, John A., Jr.
Shepard, Ruth J.
Shields, Richard L.
Shnider, Brina
Shugrue, John J.
Shulman, Andrew J.
Shultis, Gretchen
Sidell, Joan E.
Silberstein, Eve S.
Simmons, Robert C.
Simons, Rochelle
Simons, Thomas G.
Singleton, Robert G.
Slattery, Anne M.
Slattery, John H., Jr.
Slesinger, Robert L.
Small, Robert D.
Smidt, William J.
Smith, Beverly A.
Smith, Carol A.
Smith, Charles L.
Smith, F. S., 3rd
Smith, Joan E.
Smith, Marion J.
Smith, Robert B.
Smith, Valerie J.
Smola, Edward H.
Snape, Wayne L.
Sneider, Barbara R.
Sobek, Robert S.
Solitario, Joanne M.
Soraghan, John E.
Southard, John K., Jr.
Souza, Jacqueline
Spearen, Susan
Speight, Nancy L.
Spencer, Edward F.
Spiers, Robert L.
Spineti, John P.
Standish, Sandra L.
Stanford, Bruce H.
Stanley, Peter W.
Starr, Donald J.
Starr, Martin S.
Stec, Patricia K.
Steensma, Kathryn A.
Stengel, Cynthia
Stephan, Richard H.
Sterling, Edward M.
Stevens, Peter C.
Stevenson, Jeanette L.
Stewart, David C.
Stockhaus, Sonja M.
Stoddard, Donald K.
Stone, Beth E.
Stone, Howard E.
Stranger, Walter V.
Streeter, Susan B.
Strong, Archie
Sturtevant, V. A.
Sullivan, Paul P.
Sullivan, Thomas W.
Summers, Anthony S.
Sundlin, Raymond W.
Suzor, Raymond E., Jr.
Swanson, John W.
Swart, John S.
Swartz, Stephen A.
Swenson, George H.
Szlegier, Edward R.
Tabasky, Gerald I.
Tabb, O. Donald
Talanian, Harry
Talbot, Maurice P., Jr.
Tarbuck, Richard H.
Tarr, Carol L.
Tashman, Peter L.
Tatarian, Lois H.
Taylor, Lynda R.
Tebaldi, Dennis J.
Tebo, James S.
Tenney, William E.
Tepper, D. T., Jr.
Terry, Donald F.
Tessier, Cynthia A.
Teto, Susan M.
Thatcher, Ronald E.
Theberge, Paul J.
Theroux, Paul E.
Thomas, Daniel P.
Thomas, Donald L.
Thompson, Barbara A.
Thompson, Bruce W.
Thompson, Ronald E.
Thorpe, Paul E.
Tibbetts, Ann M.
Tibbetts, Fred E., III
Tillman, Joel L.
Tite, John G.

Torto, Carolyn M.
Towers, Richard L.
Towski, Bernice M.
Travers, Mary K.
Trelease, James J.
Tremblay, Donald L.
Tripp, Dennis A.
Tripp, Gertrude E.
Tripp, Richard C.
Trufant, David A.
Truman, Patrick A.
Tunberg, Ena E.
Turco, Paula A.
Turover, Alan S.
Tuttle, Gerald Allan
Twinam, John S.
Tyrrell, Dianne F.
Upton, Donald A.
Valentinetti, R. A.
Valiton, Patricia J.
Van Amburgh, Peter C.
Varisco, Betty J.
Veale, Jo Anne M.
Vermeiren, James J.
Verrier, Eileen J.
Verrier, Philip S.
Verrier, Thomas L.
Viera, Barbara L.
Villani, Davide M.
Voikos, Marcia A.
Votano, Joseph R.
Wade, Stanley H.
Wainstein, Howard J.
Wald, Arthur M.
Walker, Mary Ann
Walker, Mary E.
Wallace, Robert
Wallace, Robert M.
Walther, Maryanne K.
Walton, Judson C.
Warburton, C. E., Jr.
Ward, Janet F.
Waterman, David W.
Waterman, Robert L.
Waters, Horace H.
Watts, Paul C.
Wax, Kenneth R.
Wehmann, Janet M.
Weinbaum, Kenneth L.
Weiner, Barry Y.
Weiner, Wilma I.
Weingart, Ronald C.
Welsh, Marilyn G.
Wentworth, David H.
Werner, Joan M.
Wert, Elizabeth L.
Wesley, Hugh O.
West, Nancy A.
Westlund, Kenneth P.
Wheeler, Jeffrey M.
Whipple, Richard L., Jr.
White, Carol M.
Whiting, Patricia F.
Whitmore, Ernest P.
Whitney, Marilyn A.
Wicks, Robert C.
Wilkinson, Donald C.
Wilkinson, Judith
Williams, Leslie A.
Wilson, Barbara J.
Wilson, Richard D.
Wilson, Richard H.
Wilson, Richard W.
Winberg, Raymond W.
Winokur, L. I.
Winske, John F.
Wojcik, Janice E.
Wolanske, Richard J.
Wolf, Paul A., Jr.
Wolfe, Harold C., 3rd
Wolpert, Arthur B.
Wood, Douglas J., Jr.
Wronski, Monetta B.
Yarmac, John C.
Yates, David E.
Yeats, Nancy E.
Young, Daniel P.
Young, Orrey P.
Zagrany, Joyce E.
Zajac, Edward F.
Zalesky, Lucille A.
Ziemba, William T.
Zimmerman, Jean
Zuretti, Madelyn T.

Colleges and universities as a whole have tended to neglect their historical records, and the University of Massachusetts is no exception to this rule. Until the Machmer Room was provided in Goodell Library in 1935 no central place was available for deposit and storage of such records, and consequently many have disappeared into incinerators and waste paper collections. Some are still almost forgotten in dark and dusty storage closets. Fortunately for the historian, however, a substantial number of papers and publications have been brought together and partially catalogued. Thanks are due to Mrs. Lena Mory for her untiring efforts in this direction.

The most important sources are those relating to the president's functions. The manuscript records of meetings of trustees, faculty, and the Faculty Senate are deposited in the president's office.

While only a small portion of University correspondence, memoranda, and unprinted reports have been preserved, and very little exists for the years previous to 1930, the published records of the University are complete. Files of the annual reports of the presidents, deans, and treasurers, and also of the directors of the graduate school, short courses, experiment station, and extension service, are available in several offices. In the library's complete file of annual catalogues are found the records of the curriculum development, together with lists of faculty and students, and miscellaneous bits of valuable information. Files of the bulletins of the experiment station and the extension service are also complete and to be found in the library.

Only in a few instances have the departments preserved their historical records, and little has been done by way of writing their history. Mention should be made of historical essays written by Professor Emil F. Guba on the Waltham Field Station, by Charles A. Peters on the chemistry department, and by Miss Margaret Hamlin on the early history of the women's placement service. In 1907 Frederick H. Fowler ('08) prepared a series of sketches on earlier University personalities and events for publication in book form. Only a portion was ever published — this in the *College*

Signal — but the entire collection of manuscripts is deposited in the Machmer Room. The largest collection of correspondence and reports is found in the William L. Machmer papers which are available in Goodell Library. This collection contains valuable exchanges among the dean, the presidents, and department heads between 1920 and 1950.

The published documents of the state government have been useful in many instances. The annual reports of the State Department of Agriculture contain both the minutes of this board and the reports of county agricultural societies. Numerous addresses on the subject of agricultural education are to be found in these volumes. The legislative documents of Massachusetts are invaluable as a source of political history of the University. Annual messages of the governors are included in the volumes of *Acts and Resolves of Massachusetts.*

Newspaper files offer valuable sources of information, but must be used with care. For this study, the files of the *Boston Daily Advertiser* were useful for following the legislative history of the University. The *Springfield Republican*, though hostile to the University in its early days, still provided one of the fullest records of its development. The *Springfield Union* also contains full accounts. A file of newspaper clippings dating back into the 1880's is preserved in the Machmer Room.

The life of students is best reflected in student publications. The University has a complete file of the student newspapers — *The Aggie Life* (1890-1901), *The College Signal* (1901-1914), and *The Massachusetts Collegian* (1914-). The college yearbook, *The Index*, has had continuous publication from 1871 and contains the usual biographical data, accompanied by athletic records and quips and comments reflecting the student point of view. Far too few personal records of college life have been preserved.

Information relating to the faculty is also very meager and disappointing. An occasional lecture or two and a few of the faculty publications have made their way into the college collection. But for most of his information the historian must draw from official records and the college catalogues.

Until recently the activities of alumni have received but slight attention. The earliest information must be gleaned from the official directories which the college published periodically. Beginning in 1903 a quarterly has been published by the Associate Alumni under several titles: *College and Alumni News* (1903-1908), *The Alumni Quarterly* (1917-1918), *Alumni Bulletin* (1919-1960), and most recently *The Massachusetts Alumnus.* Some of the writings of individual alumni have been gathered in the Machmer Room, together with a miscellaneous collection of papers and albums. These contain scattered information useful for reconstructing the life of the University.

Histories of the University have usually been associated with anniversaries. On the occasion of the semicentennial in 1917, Lilley B. Caswell wrote the *Brief History of the Massachusetts Agricultural College*, tracing the chronological record from 1850 to that year. Twenty-five years later Professor Frank Prentice Rand wrote the valuable *Yesterdays at Massachusetts State College, 1863-1933.* This book describes, in partly fictionalized form, many of the most interesting episodes in the college history. For other accounts the historian must rely upon addresses and brief articles which record some phases of early history. Most useful have been the speeches of Marshall P. Wilder at the Commencement exercises in 1871, of Charles G. Davis in 1887, of Henry Hill Goodell on the relation between M.A.C. and the State Board of Agriculture in 1902, and Marquis F. Dickinson on the beginnings of the college, delivered in October 1907. Significant articles and sketches were written by Frederick H. Fowler (1907), William H. Bowker (1908), Ralph J. Watts (1909), and Robert W. Neal (1911). The backgrounds of state and town history are found in Albert Bushnell Hart, ed., *Commonwealth History of Massachusetts* (1930), Carpenter and Morehouse, *History of the Town of Amherst* (1896), and Frank Prentice Rand, *The Village of Amherst, A Landmark of Light* (1958).

— CHAPTER ONE —

[1] Actually this was a "token" ceremony, for the Governor had affixed his signature to the bill when signing a large number of measures on the previous day.

[2] *The Massachusetts Collegian,* LVII:13 (May 1, 1942), 1.

[3] Alice Felt Tyler has a stimulating review of "Education and the American Faith" in her important book, *Freedom's Ferment* (Minneapolis, 1944), 227-64.

[4] James B. McMaster, *Daniel Webster* (New York, 1902), 90.

[5] F. J. Turner, *The United States, 1830-1850* (New York, 1935), 59; J. T. Adams, *New England in the Republic* (Boston, 1927), 328.

[6] Sedgwick's address is found in the *Massachusetts Agricultural Repository and Journal,* VIII (1824-5), 83.

[7] Ed. The *New England Farmer,* September 7, 1822, 46.

[8] Letter signed "Nat Aegis" in the *Franklin Post and Christian Freeman* (August 25, 1825), 79.

[9] The Boston group was led by the Reverend Charles Lowell and included the Reverend Warren Fay, Dr. Benjamin Shurtleff, Lewis Tappan, Francis J. Oliver, Jonathan Phillips, Benjamin Guild and Hall J. Kelley. The plans for the new school and its curriculum were presented in the *New England Farmer,* III, 371; IV, 139.

[10] The *New England Farmer,* IV (1825), 214.

[11] Theodore Sedgwick, James Savage, well-known editor and antiquarian, and L. M. Parker.

[12] Arthur M. Schlesinger, Jr. has hailed him as the intellectual father of Jacksonian democracy in New England. *The Age of Jackson* (Boston, 1945), 154, 308.

[13] *Massachusetts Legislative Documents,* 1826, House Document 5, Senate Document 23. The report is also found in the *American Journal of Education,* I (Boston, 1826), 86-95, 144-160.

[14] *American Journal of Education,* I, (1826), 86.

[15] This subject was identified as "the whole science of material things."

[16] *Hampshire Gazette,* January 11, 1826, 2.

[17] *American Journal of Education,* I, 86.

[18] *Ibid.,* 214.

[19] *Massachusetts Legislative Documents,* 1826, Senate Document 23.

[20] *Massachusetts Legislative Documents,* 1827, House Document 15.

[21] Letter to Theodore Sedgwick, January 27, 1826, in the Sedgwick papers, Massachusetts Historical Society.

[22] *Hampshire Gazette,* February 15, 1826, 2.

[23] Minutes of the Amherst College Faculty, December, 1826.

[24] *Hampshire Gazette,* January 10, 1827, 2.

[25] *Massachusetts Special Statutes,* VIII (Boston, 1830-37), 48; A .C. True, *A History of Agricultural Education in the United States* (Washington, 1929), 32.

[26] Frederick Rudolph attributed the failure of the Legislature to aid the financially distressed colleges in part to the charge of social snobbery, and in part to the demands for the normal schools. Frederick Rudolph, *Mark Hopkins and the Log* (New Haven, 1956), 196. Charles W. Upham commented upon the waning of concern with emigration in his "Memorial of Daniel P. King," Essex Institute, *Historical Collection,* X (1870), 14.

[27] Walter Stemmons and André Schenker, *Connecticut Agricultural College — A History* (Storrs, Connecticut, 1931), 213.

[28] *Massachusetts Legislative Documents,* 1838, Senate Report 53, 10-11.

[29] Address found in Massachusetts Agricultural Society, *Abstracts for 1845* (Boston, 1846), 181-2.

[30] His address in *Abstracts for 1847* (Boston, 1848), 262, 272-3.

[31] *Ibid.*, 270.

[32] *Massachusetts Legislative Documents,* 1848, Senate Report, 85.

[33] Samuel C. Prescott, *When MIT was Boston Tech* (Cambridge, 1954), 26.

[34] Frank P. Rand, *Yesterdays at M.S.C* (Amherst, 1933), 27.

[35] *Massachusetts Legislative Documents,* 1850, Senate 20, House 88.

[36] Letter from Hitchcock to his son, September 25, 1850, in Hitchcock papers, Amherst College Library; *Massachusetts Legislative Documents,* 1851, Senate 13.

[37] *Massachusetts Legislative Documents,* 1851, *Senate Document* 13, 79.

[38] *Transactions of the Massachusetts Agricultural Societies,* 1851 (Boston, 1852), 398.

[39] *Report of the Massachusetts School of Agriculture* (Boston, 1858), 1.

[40] *Report of the Massachusetts School of Agriculture* (Springfield, 1862), 1, 5.

[41] Oscar and Mary Handlin, *Commonwealth: A Study of the Role of Government in the American Economy; Massachusetts, 1774-1861* (New York, 1947), 250; Frederick Rudolph, *Mark Hopkins and the Log: Williams College, 1836-1872* (New Haven, 1956), 198; *Acts and Resolves of Massachusetts,* 1859, ch. 154.

[42] United States Bureau of Education, *Report of the Commissioner,* 1868 (Washington, D. C., 1869), 237; Emma Rogers and W. T. Sedgwick, *Life and Letters of William Barton Rogers* (Boston, 1896), II, 29.

[43] State Board of Agriculture, *Annual Report for 1859* (Boston, 1860), 130-138, 258.

[44] F. H. Fowler, "Early Agricultural Education In Massachusetts," State Board of Agriculture, *Annual Report for 1906,* 363-367.

[45] *Acts and Resolves Passed by the General Court of Massachusetts in 1863* (Boston, 1863), 620.

[46] *Massachusetts Legislative Documents,* 1863, Senate 108, 19.

[47] *Massachusetts Legislative Documents,* 1861, Senate Document 165; Frederick H. Fowler, "Historical Sketches," MSS in U of M Archives; *Massachusetts Legislative Documents,* 1863, Senate Report 108, 18; Emma Rogers and W. T. Sedgwick, *Life and Letters of William Barton Rogers,* II, 149, 153, 163-4.

[48] *New England Farmer,* XV (1863), 167.

[49] *Massachusetts Legislative Documents,* 1863, Senate Document 108 (March 26, 1863), 17.

[50] *Ibid.*, 29.

[51] Ed., *Boston Advertiser,* April 22, 1863.

— CHAPTER TWO —

[1] Massachusetts Institute of Technology, Boston College, Boston University, the Worcester Polytechnic Institute were established in the 1860's.

[2] The charter specified that a sum of $75,000 should be placed at the disposal of the corporation.

[3] The fact that Simon Brown, editor of this paper, was a brother-in-law of French and a member of the Board of Agriculture may also have had some bearing on his selection.

[4] Governor Andrew later revealed that he had proposed to no avail that the governors of neighboring states might enter an agreement to delay liquidation. He had also appealed to Massachusetts men to use their personal fortunes to hold the scrip for a better market. Massachusetts State Board of Agriculture, *Annual Report*

for 1864 (Boston, 1865), 52.

[5] It is a matter of interest that the chairman of the Joint Committee on Agriculture, who steered this measure through the legislature, was William S. Clark of Amherst, already a strong friend of the College and later to become one of its presidents. *Massachusetts Legislative Documents, 1864,* House Report 179.

[6] Goodell in *Annual Report of the Massachusetts Agricultural College for 1888,* 19. Hereafter referred to as *Annual Report.* Historian E. D. Ross in 1942 concluded that land sales in Massachusetts had been "inexcusably inefficient." Earle D. Ross, *Democracy's Colleges. The Land-Grant Movement in the Formative Stage* (Ames, Iowa, 1942), 84.

[7] F. W. Blackmore, *History of Federal and State Aid to Higher Education,* United States Bureau of Education, *Circular of Information* (Washington, 1890), 339-40.

[8] Letter of 1 January, 1864 in University of Massachusetts Historical Archives.

[9] *Massachusetts Legislative Documents, 1865,* Senate 172.

[10] The *Springfield Republican* felt that the enthusiasm which had secured promises of some $40,000 in 1860 had since been dulled by the false impression that Federal largess rendered local benevolence unnecessary. Ed. January 26, 1863.

[11] Ed., *Hampshire Gazette,* Feb. 2, 1864; letter of January 19.

[12] Hitchcock, Nash, Joseph Hoover, G. B. Jewett, W. S. Tyler, Aaron Warner, W. S. Clark, and T. S. Snell held membership in 1861.

[13] *Hampshire Gazette,* Feb. 2, 1864, 2; F. P. Rand, *Yesterdays at M.S.C.* (Amherst, 1933), 4-7.

[14] M. F. Dickinson, "The Beginnings of a College," an address delivered at the Massachusetts Agricultural College on October 2, 1907, 9.

[15] Pamphlet, "The Petition of the Town of Amherst," 1865, 3.

[16] *Annual Report for 1864,* 4, F. P. Rand, *Yesterdays,* 1-6.

[17] *Annual Report for 1864,* 4-5. "The second best town got it," quipped the *Hampshire Gazette.* Ed. May 31, 1864.

[18] Massachusetts Board of Agriculture, *Annual Report for 1864* (Boston, 1865), 83-4.

[19] *Annual Report for 1864,* 6.

[20] Letter from Anna Stockbridge Tuttle to George Cutler written in 1934 or 1935, in Stockbridge Papers, University of Massachusetts Historical Archives.

[21] Pamphlet, "The Petition of Amherst," n.d. in U of M Archives.

[22] Rand, *Yesterdays,* 7-9; "The Petition of Amherst."

[23] *Annual Report for 1867,* 26; *1868,* 38.

[24] *Annual Report for 1867,* 7.

[25] MIT raised $480,000 in endowment funds between 1862 and 1868. Emma Rogers and W. T. Sedgwick, *Life and Letters of William Barton Rogers* (Boston, 1896), II, 144-5, 157. The endowments of Amherst and Williams increased ten-fold between 1852 and 1872. Rudolph, *Mark Hopkins and the Log* (New Haven, 1956), 190; W.P.I. received $500,000 in its first twenty years after being chartered in 1865; $100,000 of this was donated by John Boynton of Templeton because of his intense interest in education for mechanics. D. Hamilton Hurd, comp., *History of Worcester County, Massachusetts* (Philadelphia, 1889), 1518.

[26] Ed. *Springfield Republican,* January 26, 1864, 2.

[27] Rand, *Yesterdays,* 16; C. D. Davis, "Address Delivered at M.A.C. in 1887," 45.

[28] "Report of Messrs. Vaux and Richards" (1865), 2.

[29] Hills was a friend of W. S. Clark, and F. P. Rand suggested that the latter's influence may have been strong in this election. Rand, *Yesterdays,* 14.

[30] "Olmsted Report," 2.
[31] *Ibid.*, 7.
[32] At the time of Chadbourne's death, Levi Stockbridge remarked that the plans for the college had been largely his work. *Springfield Daily Republican*, Feb. 24, 1883.
[33] Henry F. French had written in his report for 1865 that the college would have to wait for costs to drop. *Annual Report for 1865*, 26; and Levi Stockbridge later referred to "small values (received) at fictitious prices" when common laborers received up to $2.50 per day and mechanics as high as $4.00 instead of the wage of $1 to $2. *Annual Report, 1880*, 12.
[34] Massachusetts Board of Agriculture, *Annual Report for 1865*, 68.
[35] *Annual Report for 1865*, 15.
[36] *Boston Journal of Chemistry*, Vol. 4 (1869-70), 65, 69.
[37] See remarks of Leander Wetherall, made in a thorough debate on the subject at the Salem meeting of the State Board. Massachusetts State Board of Agriculture, *Annual Report for 1866* (Boston, 1867), 40-41.
[38] *Annual Report for 1865*, 14, 19-20; *1866*, 15.
[39] Rand, *Yesterdays*, 18.
[40] *Annual Report for 1867*, 89; *1868*, 22.
[41] Massachusetts State Board of Agriculture, *Annual Report for 1867* (Boston, 1868), 61.

— CHAPTER THREE —

[1] L. B. Caswell, *Brief History of the Massachusetts Agricultural College* (Springfield, Mass., 1917), 11.
[2] W. H. Bowker, "Memorial Oration," *The Register* (July 19, 1871), 3.
[3] "Two Years at the People's College," *The Irving Gazette*, Vol. 2 (July 16, 1869).
[4] W. H. Bowker, "Commemorative Address," *Annual Report, 1908*, 79.
[5] *Annual Report for 1865*, 15.
[6] *Annual Report for 1867*, 12.
[7] W. H. Bowker, *"The Old Guard," Address at 40th anniversary* (Boston, 1908), 8-9.
[8] Bowker, *"The Old Guard,"* 8.
[9] Bowker, *"The Old Guard,"* 8.
[10] *Annual Report for 1868*, 7.
[11] Bowker, *"The Old Guard,"* 9.
[12] Secretary's Report of the Washington Irving Literary Society, Vol. I (September 18, 1868).
[13] *Annual Report for 1869*, 14-15.
[14] Caswell, *Brief History*, 14.
[15] Secretary's Book of the College Christian Union (November 21, 1868-September 1, 1882).
[16] L. A. Nichols, "Benediction," *The Register* (July 19, 1871), 5.
[17] *Annual Report for 1870*, 85.
[18] "Behavior," *The Irving Gazette*, Vol. 6, No. 2 (October 7, 1870).
[19] Bowker, *"The Old Guard,"* 11.
[20] "History of D.G.K." from a pamphlet entitled "Gamma Delta Chapter of Kappa Sigma," 1917-18.
[21] This team took its name from Marshall P. Wilder, a trustee who gave the equipment.
[22] Gideon H. Allen, "Address on Athletics in the Early Days of the College,"

(June 18, 1912), 6; letter of Standford T. Forat, class of 1878, in U of M Archives.

[23] G. H. Allen's speech at the dedication of the Trophy Room, October 4, 1907, printed in *The College Signal,* XVIII (October 16, 1907), 7.

[24] *Annual Report for 1871,* 12.

[25] Bowker, "Commemorative Address," 85-6.

[26] *General Catalogue of the M.A.C.,* 1862-1886 (1886), 21-28.

— CHAPTER FOUR —

[1] *Annual Report for 1873,* 11.

[2] *Acts and Resolves of Massachusetts,* 1871, 820.

[3] *Annual Report for 1871,* 9-12.

[4] This, the supporters believed, would provide M.A.C. with some $14,000 of annual income. *Annual Report for 1871,* 99.

[5] Massachusetts Board of Agriculture, *Annual Report for 1870,* II, 77.

[6] *Annual Report for 1872,* 22.

[7] *Annual Report for 1875,* 9-11.

[8] *Annual Report for 1876,* 8.

[9] *Annual Report for 1877,* 16.

[10] "An address to the Trustees of M.A.C. concerning its management," (January 13, 1879).

[11] *Springfield Republican,* January 24, 1879.

[12] Rand, *Yesterdays,* 53.

[13] Years later Henry Goodell criticized Clark. "He could brook no delay, and his desire to gather about him a great university made him lose sight of the necessity for slow and steady growth. He could not wait; and the foundation on which he built was not broad enough for the edifice with which he would have crowned it." Levi Stockbridge taciturnly put it, "I did not have too much confidence." *Annual Report for 1886,* 19.

[14] *Annual Report for 1878,* 12-14.

[15] *Springfield Republican,* February 1, 1879.

[16] Rand, *Yesterdays,* 51.

[17] *Acts and Resolves,* 1879, Chapter 258.

[18] *Miscellaneous Papers,* 1880.

[19] Massachusetts Board of Agriculture, *Annual Report for 1880,* 200, 216.

[20] A draft of this proposal in the hand of Levi Stockbridge differs slightly from that which was published in the *Springfield Republican.* Both are to be found in the Archives of the U of M.

[21] *The Index,* X (1878), 85.

[22] *Acts and Resolves Passed by the General Court of Massachusetts in 1881,* 684.

[23] Massachusetts State Board of Agriculture, *Annual Report for 1873,* I, 83.

[24] Rand, *Yesterdays,* 35-37.

[25] Massachusetts State Board of Agriculture, *Annual Report for 1876,* II, 35.

[26] *Annual Report for 1878,* 15; J. L. Hills, Address of June 17, 1913.

[27] *Index,* 1880, 67.

[28] *Annual Report for 1881,* 20.

[29] *The Cycle,* June 20, 1882, 4.

[30] *Annual Report for 1883,* 20.

[31] Letters in Chadbourne's Scrapbook in U of M Archives.

[32] Letter of February 4, 1882.

[33] *Annual Report for 1882,* 10.
[34] *Annual Report for 1882,* 11.
[35] *Annual Report for 1883,* 14.
[36] *The Massachusetts Collegian,* Vol. XXXV, (December 10, 1924), 1, 6.
[37] *The Massachusetts Collegian,* Vol. XXXIII, (March 7, 1823), 4.
[38] *Annual Report for 1886,* 13.
[39] From a lecture entitled "Agriculture in Japan," printed in Boston in 1879, 26.
[40] William Penhallow, "Japan's Colonial College," *The Cycle,* II, (June 23, 1880), 6-11.

— CHAPTER FIVE —

[1] *Annual Report for 1886,* 10.
[2] "George Franklin Mills: Address at the Memorial Service," Amherst, 1915. M.A.C. collection.
[3] *Annual Report of the Massachusetts Agricultural Experiment Station,* 1883, 7.
[4] *Annual Report for 1892,* 8.
[5] *Annual Report for 1899,* 16.
[6] Although this had been modified by Clark, and later discontinued by Greenough, the practice had been taken up again at the beginning of Goodell's administration.
[7] H. H. Goodell, "Address on Manual Labor," n.d., M.A.C. collection.
[8] *Annual Report for 1893,* 63.
[9] Earle D. Ross, *History of Iowa State College* (Ames, Iowa, 1942), 62; United States Commissioner of Education, *Report for 1880* (Washington, 1882), CXL.
[10] *Annual Report for 1892,* 8.
[11] *Annual Report for 1901,* 12.
[12] *Annual Report for 1905,* 12.
[13] *College Signal,* XVL, (May 23, 1906), 158; (September 26, 1906), 3.
[14] *Annual Report for 1877,* 12.
[15] Ed. in the *Massachusetts Ploughman,* December 8, 1883.
[16] *Annual Report for 1883,* 19; *for 1884,* 11, 16.
[17] See his personal letter of July 8, 1888 to Mr. Root, alumni agent for his class, in the Goodell papers, U. of M. Library.
[18] *Annual Report for 1902,* 15.
[19] *College Signal, XVII* (October 24, 1906), 31.
[20] *Annual Report for 1888, 9; 1892,* 14; *College Signal, XVII* (Oct. 10, 1906), 14; letter of John R. Perry '93, May 2, 1933, in U. of M. Papers, Buildings and Grounds.
[21] *Annual Report for 1894,* 11; *1896,* 85-6; *1897,* 17-18.
[22] *Annual Report for 1896,* 19.
[23] F. A. Waugh, "Grounds of the Massachusetts Agricultural College", MSS. 1925 in U. of M. collection.
[24] Lois Banister in *The Massachusetts Collegian, LV: 9* (November 30, 1944), 4.
[25] Waugh, "Grounds of the Massachusetts Agricultural College", 13-14.
[26] *Annual Report for 1904,* 14.

— CHAPTER SIX —

[1] An analysis by country and number of students reads thus: Japan, 18; Brazil, 12; Turkey, 8; Mexico, 7; Hawaii, 5; Canada, 4; Chile, 4; Cuba, 2; and one each from China, Burma, Spain, Austria, Costa Rica, and Barbados.
[2] *Index,* XI (1879), 6.

[3] Frank P. Rand, *Phi Sigma Kappa: A History* (Northampton, Mass., 1923), 23.
[4] Rand, *Yesterdays*, 33.
[5] President Chadbourne in 1866 expressed his opposition to such groups. *Annual Report for 1866*, 8-9.
[6] *Annual Report for 1893*, 11; *The Cycle*, XXVI (1904), 11.
[7] *Index*, 1901, 139-140.
[8] See article on "co-education" in *The Index, 1891*, 76-7.
[9] See description of 1904 promenade in the *College Signal*, XIV (February 17, 1904), 12.
[10] *Annual Report for 1872*, 39.
[11] *Aggie Life*, I (October, 1890), 3.
[12] *Aggie Life*, IX (June 20, 1899), 196.
[13] See his Baccalaureate Sermon for 1892, printed in *The Treasury of Religious Thought*, X (July, 1892), 175-182; "The Problem of Currency," *Bibliotheca Sacra* (April, 1898), 322-341.
[14] Abstract of the Baccalaureate Sermon delivered on June 14, 1896.
[15] *Annual Report for 1900*, 83.
[16] *College Signal*, XVI (June 18, 1906), 182.
[17] H. M. Gore, "A Brief Resume of M.A.C. Athletics," MSS. in U. of M. Archives, 4.
[18] *The Cycle*, IV (June 20, 1882), 16; *The Index, 1882*, 85.
[19] T. Marsh in *Aggie Life*, IV (March 14, 1893), 135.
[20] *Aggie Life*, I (February 11, 1891), 66.
[21] See Brooks' account of the early movement in *The College Signal*, XXIV (December 9, 1913), 2; and a later summary by Professor Charles A. Peters, "A Cooperative Boost for Alumni Field," *Massachusetts Agricultural College Quarterly*, I (April, 1917), 13.
[22] *Aggie Life*, IX (February 1, 1899), 13.
[23] Letter of S. F. Howard in *College Signal* (June 16, 1914), 5.
[24] MSS. in Buildings and Grounds File, U. of M. collection.
[25] See remarks made by Professor Curry Hicks for the New York Alumni Club, U. of M. Archives November 2, 1939.
[26] *The College Signal*, XV (December 14, 1904), 51-2.
[27] Curry Hicks, "Remarks," 4.
[28] Harold M. Gore, "A Brief Resume of M.A.C. Athletics," U. of M. archives.
[29] *College Signal*, XV (Nov. 30, 1904), 40.
[30] *Aggie Life*, XII (October 2, 1901), 5-6.
[31] *College Signal*, XV (Oct. 4, 1905), 5; XVII (Sept. 26, 1906), 8.
[32] *Aggie Life*, VIII (March 16, 1899), 120.
[33] *Aggie Life*, VIII, 136.
[34] *Annual Report for 1905*, 26.

— CHAPTER SEVEN —

[1] Butterfield's Inaugural Address, October 17, 1906, 17.
[2] *College Signal*, XVII (September 26, 1906), 1; (October 10, 1906), 13.
[3] *College Signal*, XVI (December 13, 1905), 54; (January 10, 1906, 64.
[4] Inaugural Address, 26.
[5] *Ibid.*, 29.
[6] These increases resulted from the Adams Act of 1906, a supplement to the Hatch Act, for better support to the experiment stations; the Nelson Amendment of 1907,

which added to the general funds received from the two Morrill Acts; and, finally, the Smith-Lever Act of 1914 to aid in the establishment of rural extension teaching.

[7] *Annual Report for 1908,* 11, 12.
[8] R. W. Neal, "The College Bay State Built," *Western New England, I* (1911), 84.
[9] *Annual Report for 1911,* 40.
[10] *Annual Report for 1908,* 24-5.
[11] *Annual Report for 1916,* 46-50.
[12] *Annual Report for 1924,* 9; Emil F. Guba, "Narrative of the Establishment, Development, and Organization of the Waltham Field Station, University of Massachusetts," unpublished essay in U of M Archives.
[13] *The Cycle,* XXVIII (1906), 18.
[14] Pamphlet, "Inauguration of Kenyon L. Butterfield," (October 17, 1906), 19.
[15] *Ibid.,* 21, 25.
[16] See his comment in *Annual Report for 1911,* 9.
[17] *Annual Report for 1906,* 18.
[18] Murray Lincoln, *Vice-President in Charge of Revolution* (New York, 1960), 13.
[19] Merle Curti and Vernon Carstensen, *The University of Wisconsin, 1884-1925* (Madison, Wisconsin, 1949), II, 422.
[20] *Annual Report for 1916,* 120.
[21] *Annual Report for 1915,* 54.
[22] *Annual Report for 1906,* 19-25.
[23] A. E. Benson, *History of the Massachusetts Society for Promoting Agriculture* (Boston, 1942), 29, 30.
[24] A. C. True, *A History,* 24.
[25] Willard A. Munson in "Information Statements, 1933;" *Annual Report for 1906,* 13.
[26] *Annual Report for 1906,* 22.
[27] *Annual Report for 1908,* 8.
[28] *Annual Report for 1909,* 13.
[29] *Annual Report for 1910,* 101-2.
[30] *Extension Circulars* 11 and 12, Amherst, 1917.
[31] *Springfield Union,* January 9, 1911.
[32] O. M. Kile, *The Farm Bureau Movement* (New York, 1921), 72, 96-7. Kile credits Broome County, New York, with having the first supervised county farm bureau agent; he began his work on March 20, 1911.
[33] *Springfield Republican,* September 26, 1910.
[34] *Annual Report for 1909,* 9.
[35] *Annual Report for 1912,* 28-47.
[36] *Annual Report for 1915,* 16, 17.
[37] *Annual Report for 1906,* 22.
[38] F. P. Rand, *Yesterdays,* 138.

— CHAPTER EIGHT —

[1] *Springfield Republican,* March 26, 1916.
[2] F. P. Rand, *Yesterdays,* 138.
[3] See editorial, *College Signal,* Vol. 3 February 20, 1907.
[4] Robert W. Neal, "The College That Bay State Built," *Western New England* (1911), 89, 91.

[5] *The Massachusetts Collegian,* Vol. 27 (March 6, 1917), 4.
[6] *Annual Report for 1908,* 16; *1910,* 129; Neal, "College," 87.
[7] *College Signal,* Vol. 7 (June 17, 1913), 4.
[8] *Annual Report for 1915,* 14.
[9] *Annual Report for 1914,* 15.
[10] *College Signal* June 16, 1914, 4.
[11] *College Signal,* XXI: 5 (October 18, 1910), 3; *The Massachusetts Collegian* February 10, 1961. Young Nicholson went on to a successful career in the American Red Cross, retiring finally as executive vice-president.
[12] *The Index,* 1918, 200.
[13] Rand, *Yesterdays,* 99.
[14] The Constitution as adopted October 21, 1913 is in U of M Archives.
[15] *Annual Report for 1914,* 48-9.
[16] *Annual Report for 1914,* 28-9, 48-9.
[17] See Brooks' account in *College Signal,* XX: 33 (June 21, 1910), 6.
[18] *Annual Report for 1909,* 15.
[19] *College Signal,* XXIV (December 16, 1913), 12.
[20] *Annual Report for 1916,* 50-1; *Index* for 1918, 222.
[21] Ed. *Massachusetts Collegian,* XXVII 17 (February 6, 1917), 4.
[22] *Annual Report for 1917,* 10.
[23] *Annual Report for 1917,* 9-10.
[24] The entering class in 1916 held 170 and that of 1915, 211. *Annual Report for 1917,* 27.
[25] Professors Neal, Wheeler, Kilham, and Hicks gave much time to the Massachusetts Food Production Committee, the last-named organizing a farm-labor exchange. Director Hurd, Professor Machmer, and Miss Sayles took positions with the United States Department of Agriculture, and Professor W. D. Clark labored with the Massachusetts Fuel Administration. *Annual Report for 1917,* 15.
[26] *Annual Report for 1918,* 9.
[27] *Annual Report for 1917,* 28.
[28] *Annual Report for 1918,* 8.
[29] Professor A. A. Mackimmie to author.
[30] *Massachusetts Collegian* XXIX: 6 (December 11, 1918), 4.
[31] *Inaugural Address,* 26; *Annual Report for 1914,* 31.
[32] *Annual Report for 1917,* 59-63.
[33] Details are taken from a memorandum written by Miss Hamlin on January 1, 1958.
[34] These regulations were published in the *Massachusetts Collegian* (October 16, 1917), 1.
[35] Roland Verbeck in "Information Statement," 1933.
[36] *Annual Report for 1920,* 32; *for 1921,* 18.
[37] The president had veterans in Kenney, Hasbrouck, and Marshall; his new men were John D. Willard in the extension service; Sidney B. Haskell, former head of the agronomy department, who returned to the College after four years absence to become director of the experiment station; Henry Green, who succeeded his brother as librarian; and John Phelan who moved from his post in rural sociology to become the director of short courses.
[38] Two of six department heads in the division of agriculture were changed: Schuyler M. Salisbury replaced John C. McNutt in the dairy department, and Arthur B. Beaumont succeeded Sidney B. Haskell in agronomy. In the division of horticulture Clark L. Thayer replaced Arno H. Nehrling in floriculture, Lawrence Grose became

head of forestry after William D. Clark, and Walter W. Chenoweth was appointed as head of the new department of horticultural manufactures. No changes occurred in the department headships in the divisions of science and the humanities. In rural social science Miss Skinner became a new department head and Winthrop S. Welles succeeded Hart in education in 1923.

[39] *Annual Report for 1920,* 19.

[40] A. B. Hart, ed., *Commonwealth History of Massachusetts* (New York, 1930), V, 31.

[41] No major building was provided by the state between 1913 and 1922; special appropriations were made only for repairs and minor improvements.

[42] *Annual Report for 1918,* 28-31.

[43] *Annual Report for 1919,* 16.

[44] *Annual Report for 1921,* 15.

[45] Manuscript in President's Office file, U of M.

[46] Quoted in the *Springfield Republican,* August 19, 1921.

[47] *Annual Report for 1924,* 4.

— CHAPTER NINE —

[1] *Annual Report for 1921,* 40.

[2] *Annual Report for 1925,* 8-9.

[3] *Annual Report for 1926,* 2-10.

[4] *Ibid.,* 10.

[5] *Annual Report for 1927,* 3-23.

[6] *Massachusetts Collegian,* XXXVIII, November 2, 1927, 3.

[7] *Annual Report for 1928,* 7-8. See letters in *Massachusetts Collegian,* XXXIX, January 16, 1929, 2.

[8] *The Massachusetts Collegian,* XXXIX, June 12, 1929, 1.

[9] *The Massachusetts Collegian,* XLI, April 9, 1931, 1.

[10] *Annual Report for 1930,* 12.

[11] Massachusetts Farm Bureau Federation, *Report of the special committee on M.A.C.,* June 2, 1922.

[12] *Annual Report for 1931,* 2, 13.

[13] Rand, *Yesterdays,* 189.

[14] *Annual Report for 1933,* 3, 4.

[15] Frank P. Rand, *The Village of Amherst* (Amherst, 1958), 264.

[16] Report of June 11, 1934 in the Machmer files.

[17] *Annual Report for 1935,* 15.

[18] *Annual Report for 1926,* 5.

[19] For the student interest see *The Massachusetts Collegian,* XLV, November 22, 1934, 2; for the reply of the administrators, *The Annual Report for 1935,* 15-16, 23.

[20] *Annual Report for 1938,* 4.

[21] *Ibid.,* 23.

[22] *Annual Report for 1933,* 13.

[23] *Annual Report for 1936,* 10-11.

[24] *Ibid.,* 12.

[25] Roscoe W. Thatcher had died at his desk in the Chemistry Laboratory on December 6, 1933.

[26] This association had been authorized by the legislature in Chapter 388 of the

Acts of 1939 following seven or eight years of agitation by the alumni. *Annual Report for 1940*, 30.

[27] *Annual Report for 1940*, 5, 10.

— CHAPTER TEN —

[1] The *Massachusetts Collegian*, LI, February 20, 1941, 3.

[2] The *Massachusetts Collegian*, L, February 15, 1940.

[3] *Annual Report for 1941*, 2.

[4] The *Massachusetts Collegian*, L, January 18, 1940, 5; LXXIV (Sic.) May 15, 1941, 1.

[5] MSS. *Annual Report of the Dean for 1941*, 7.

[6] *Annual Report of the Dean for 1940* 14-15; The *Massachusetts Collegian*, L May 23, 1940, 1.

[7] *Annual Report of the Dean for 1941*, 5.

[8] The *Massachusetts Collegian*, L, November 16, 1939, 2.

[9] *Annual Report for 1940*, 5.

[10] The *Massachusetts Collegian*, LI, January 9, 1941, 1; February 13, 1941, 1.

[11] The *Massachusetts Collegian*, L, November 23, 1939, 1; February 29, 1940, 1.

[12] *Annual Report of the Dean for 1941*, 10.

[13] The *Massachusetts Collegian*, February 22, 1945, 2.

[14] The report, dated August 21, 1944, is in the Machmer Archives, U. of M.

[15] *Annual Report for 1948*, 6.

[16] "A Cooperative Venture in Higher Education, The University of Massachusetts at Fort Devens," *Report of a Survey Committee of American Council on Education* (Washington, D. C., 1950), 7.

[17] *Ibid.*, 8.

[18] *Ibid.*, 11.

[19] *Ibid.*, 20-21.

[20] The *Massachusetts Collegian*, LVI, Feb. 14, 1946, 3.

[21] Report of the Sub-Committee of Massachusetts Special Legislative Commission on Education, 8. This report is in the President's file, U. of M. Archives.

— CHAPTER ELEVEN —

[1] *Annual Report for 1952*, 4.

[2] *Annual Report for 1948*, 2.

[3] Inaugural Address, October 16, 1948, 9.

[4] William G. Colby succeeded Walter Eisenmenger in agronomy, Kenneth L. Bullis took over from John B. Lentz in veterinary science, and Denzel J. Hankinson replaced Julius H. Frandsen in the dairy department. Vacancies which were left in the school of horticulture when Ralph A. Van Meter became president, and by the retirements of Clark L. Thayer, Arthur K. Harrison, and Robert P. Holdsworth, were filled by others who had years of experience on the staff. Arthur P. French, Arnold D. Rhodes, and Alfred W. Boicourt took over in horticulture, forestry, and floriculture. Grant B. Snyder in olericulture, and Lyle Blundell and Raymond H. Otto in landscape architecture, continued to lead the work in these well-established departments.

[5] *Annual Report for 1953*, 7.

[6] Ten years later Portuguese was added to the curriculum.

[7] In the science school, the death of George E. Gage in 1948 brought Leon

Bradley in as department head in bacteriology. He was succeeded by Ralph France in 1953. Theodore T. Kozlowski followed Vincent Osmun in 1950 as head in botany. Charles A. Peters brought his long career of research and teaching in chemistry to a close in 1945, while the mathematics department lost the services of two of its veterans, William L. Machmer and Frank C. Moore. Allen E. Anderson became the new head of mathematics, Gilbert L. Woodside of zoology, and Leonard R. Wilson of the department of geology and mineralogy. It may be noted that in the science division during these years, entomologist Charles P. Alexander continued to attract world-wide attention through his study of crane flies, and Harvey L. Sweetman carried on fruitful research and instruction in the area of pest controls.

In the liberal arts school Frank Prentice Rand continued to chair the English department to 1955, when he was succeeded by Maxwell H. Goldberg. Philip A. Gamble in economics and Claude C. Neet in psychology also continued the leadership which they had assumed in the previous decade. Theodore C. Caldwell and Harold W. Cary became heads of the history department on a rotating basis, and J. Henry Korson was the chairman of the new sociology department. Fred V. Cahill, Jr. headed the government department for a short time previous to his appointment as dean of Arts and Sciences. Fred C. Ellert who had taught German since his graduation in 1930 became head of the German department, while the Romance languages department was led by Charles F. Fraker until 1955, and then by Stowell C. Goding. Arthur E. Niedeck was appointed as head of the speech department, and Doric Alvani chaired the small department of music and art.

[8] The 431 in 1940 had increased to 626 in 1945. When the bulk of the veterans had been admitted, the enrollment of women increased rapidly from 787 in 1950 to 1264 in 1954.

[9] See report of Conant's presentation to the Ways and Means Committee of the legislature. *Alumni Bulletin,* XXIX, March, 1947, 3.

[10] *President's Report for 1950,* 10-11.

[11] Julian I. Lindsay, *Tradition Looks Forward* (Burlington, Vt., 1954), 261.

[12] *Annual Report for 1918,* 13.

[13] The report of November 2, 1949. U of M Archives.

[14] Undated memo of Dean Machmer in his file.

[15] *Annual Report for 1949,* 12.

[16] *Inaugural Address,* October 21, 1954.

[17] *Inaugural Address,* 4.

[18] *Annual Report for 1958,* 9.

[19] This study was prepared by the firm of Shurcliff, Shurcliff and Merrill of Boston.

[20] *Annual Report for 1954,* 3.

[21] *Annual Report for 1958,* 8.

[22] These were Baker, Brooks, Butterfield, Chadbourne, Greenough, Hills, Mills, Van Meter and Wheeler.

[23] Arnold, Crabtree, Dwight, Hamlin, Johnson, Knowlton, Leach, Lewis, Mary Lyon, and Thatcher. Two of these had been planned as dormitories for men, and were often used for this purpose. But in the new plan they were destined to become women's residences permanently.

[24] *Annual Report for 1960,* 14-15. Other members of the staff in 1962 were Dr. Julian F. Janowitz, Dr. Richard K. Jennings, Dr. Thomas C. McBride, Dr. William Rothney, and Mrs. Doris Wing.

[25] Other members of the Student Union staff were Harold W. Watts, Assistant

Director; Augustine J. Ryan, Manager of the University Store; Russell W. Colvin, Food Service Manager; Edward A. Buck, Assistant Director of Student Activities.

[26] *Acts and Resolves of Massachusetts,* 1953.

[27] *Boston Herald,* August 24, 1960.

[28] President Lederle's inaugural address is found in the *Report of the President for 1960,* 3-9.

[29] Address delivered at Conference of the New England Association of School Superintendents, Swampscott, Mass., October 17, 1961.

[30] Inaugural address of April 22, 1961, 3-4.

[31] *Ibid.*

[32] The original members of this committee were the presidents of the four institutions — Charles W. Cole (Amherst College), Roswell G. Ham (Mount Holyoke College), Benjamin F. Wright (Smith College), and J. Paul Mather (University of Massachusetts). In 1962 the four presidents were Calvin H. Plimpton, Richard G. Gettell, Thomas C. Mendenhall, and John W. Lederle. The administration of the program was entrusted to a coordinator. Professor Sidney R. Packard (Smith) served in this office from the beginning to June 1961, and since that time Professor Stuart M. Stoke (Mount Holyoke) has served.

[33] Address delivered at the All-University Convocation, September 21, 1961.

[34] *Report of the Special Commission on Budgetary Powers of the University of Massachusetts and Related Matters,* January 24, 1962. The Special Commission was authorized by the General Court under Chapter 92, Resolves of 1961.

[35] Justin S. Morrill, *Address Delivered at the Massachusetts Agricultural College, June 25, 1887* (Amherst, 1887), 23.

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